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THE INSECT PEST SURVEY
BULLETIN

A periodical review of entomological conditions throughout the United States
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INSECT PEST SURVEY BULLETIN

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OUTSTANDING ENTOMOLOGICAL FEATURES IN THE UNITED STATES FOR JUNE, 1930

In spite of indications earlier in the season of grasshopper damage in parts of Montana, no serious damage has been reported as yet. The only outbreak of importance is in northern Michigan. Localized depredations are reported from parts of Missouri and southeastern Nebraska.

Cutworm outbreaks continued throughout the early part of the month in the Dakotas and Nebraska, westward to Colorado, Utah, and Montana.

An extensive outbreak of the white-lined sphinx on Russian thistle and mallow in Nevada is attracting considerable attention.

Wireworm depredations are being reported from the entire eastern half of the country from Maine to South Carolina and Mississippi and westward to the Dakotas.

White-grub injury continues to be serious in the North Central States eastward to Illinois.

The rose chafer is abnormally abundant throughout the Middle Atlantic and East Central States.

A very serious outbreak of the Hessian fly has developed in southeastern Nebraska.

The chinch bug appears to be building up a threatening population in Illinois, Missouri, and Oklahoma.

An outbreak of the armyworm is reported from Washington County, Iowa, and the fall armyworm is occurring in outbreak numbers in eastern North Carolina and southern Mississippi.

The corn ear worm was appearing about the middle of the month in destructive numbers in South Carolina and was quite generally prevalent southward. Corn shipped into Wisconsin from parts of the Gulf Region was 40 per cent infested.

Corn billbugs are attracting considerable attention in river-bottom land along the Illinois and Mississippi Rivers.

Apple leafhoppers appear to be more abundant than usual in the New England and Middle Atlantic States southward to Virginia and westward to Michigan, Indiana, and Tennessee.

Cankerworms have been seriously defoliating orchards in New York, Pennsylvania, Wisconsin, Minnesota, and North Dakota.

The first crawlers of the San Jose scale were observed in Indiana June 1 and in Washington State on June 10.

The plum curculio seems to be more prevalent than usual in the New England and Middle Atlantic States and decidedly less numerous than usual in the South Atlantic States.

The citrus aphid increased rapidly in central Florida during the latter part of June.

The seed corn maggot was unusually prevalent from New York southward to North Carolina and westward to Nebraska. Damage to melons and squash seed was also reported from Utah.

The vegetable weevil is now known to occur in 116 counties in the States of Louisiana, Mississippi, Alabama, and Florida. The spread to the northward is not so rapid this year as last.

During the last week in May and the first two weeks in June the Mexican bean beetle was observed throughout the northern part of the territory known to be infested last year.

The onion maggot has been reported as serious from scattered localities extending from New York westward across the northern half of the country to Montana and Utah.

Present indications are that the sugarcane borer will be less numerous than usual in the sugarcane-growing area in Louisiana.

The forest tent caterpillar is completely defoliating many varieties of hardwoods in Buckingham County, Va. In some cases areas up to 100 acres are infested. Similar reports but of less serious damage have been received from the northern part of Minnesota.

The ugly-nest caterpillar is heavily infesting trees in southeastern Maine and eastern Massachusetts.

The boxelder aphid is seriously damaging boxelder in South Dakota and Nebraska. This seems to be a year of severe aphid outbreaks in the East Central and West Central States.

Very serious damage to oak by the fruit tree leaf roller is reported from Wisconsin. The trees in some large stands are 70 per cent defoliated.

Somewhat serious infestations of the European pine shoot moth are reported from western Massachusetts and Connecticut and eastern New York. This insect is recorded for the first time from Michigan.

OUTSTANDING ENTOMOLOGICAL FEATURES IN CANADA FOR JUNE, 1930

Severe infestations of cutworms are noted from various sections of the Dominion, particularly in the west. In southeastern Saskatchewan an especially severe outbreak of the red-backed cutworm has resulted in much damage to field and garden crops. This insect is also a serious pest in sections of southern Manitoba, and reports from Alberta indicate that it has caused heavy damage in areas south of Calgary. North of this point there has been a reduction in numbers as compared with 1929. There is also a widespread outbreak of the pale western cutworm in Saskatchewan. In a considerable area occurring from Indian Head north to Balcarres and Abernethy, this cutworm destroyed the wheat crop to the extent of 50 per cent. Scattered reports of cutworm damage also have been received from British Columbia, Ontario, Quebec and the Maritime Provinces.

Outbreaks of wireworms, with resultant severe damage to grain crops in scattered areas, are noted from many localities in the Prairie Provinces. The principal species involved is Ludius aeneipennis Kby. Wireworms are also attracting attention in sections of southern Ontario, their attacks being largely confined to corn and tobacco.

No grasshopper outbreaks of economic significance have yet been reported from any part of the Dominion.

Flea beetles of several species are again prevalent in many parts of the Dominion, reports of their depredations having been received from certain localities in almost every province.

The false chinch bug, Nysius ericae Schill., appeared in the Welling district south of Lethbridge, Alberta, attacking spring wheat. The last outbreak of this insect occurred over southern Alberta in 1923. It causes no serious injury to its host plant, but by destroying the primary leaves, alarms the farmers.

The onion maggot is an unusually severe pest this season in the Okanagan Valley, British Columbia.

Extensive flights of June beetles have been noted from Prince Edward Island, southern New Brunswick, southern Quebec, and locally in southern Manitoba.

The European chicken flea, Ceratophyllus gallinae Schrank., has been taken for the first time in Canada at Tiverton, Ontario, where it was found infesting a house and attacking the inmates.

GENERAL FEEDERS

GRASSHOPPERS (Acrididae)

- Florida J. R. Watson (June 20): Grasshoppers are moderately abundant in the Peninsula, in fact, rather more abundant than usual.
- Illinois W. P. Flint (June 16): Young grasshoppers are just hatching and apparently will be quite abundant in clover stubble.
- Michigan R. H. Pettit (June 27): An outbreak of grasshoppers has appeared in Michigan, complaints being received from Isle Royal, and the band of the infestation extends down at least as far as Benzie County in the northwestern part of the Lower Peninsula. From the appearance of the tiny nymphs the species will be Camnula pellucida for the most part. Enormous quantities of young hoppers are reported as just appearing.
- North Dakota J. A. Munro (June 20): A field trip made during the past two days through Cass County showed that newly emerged grasshopper nymphs were very scarce except in the vicinity of Amenia, where they were fairly abundant in grass lands.
- South Dakota H. C. Severin (June 18): Grasshoppers are just being noticed by farmers as being moderately abundant and inquiries are beginning to come in from northern and western South Dakota.
- Missouri L. Haseman (June 23): Grasshoppers are very abundant in Columbia. In meadows and dry pastures young nymphs are appearing in alarming swarms. Hatched about June 10.
- Nebraska M. H. Swenk (June 13): Grasshoppers (Melanoplus differentialis Thos.) have attracted considerable attention, and already have done some damage in vegetable and flower gardens. Serious injury in alfalfa and grain fields is expected later. The infested area includes southeastern Nebraska, especially the area east of the 98th meridian and south of the Platte River. (June 19): Grasshoppers are moderately abundant throughout the entire State.
- Tennessee G. M. Bentley (June 13): There is a 5 per cent increase over 1929 of grasshoppers (Schistocerca americana Drury) in Knox County.
- Mississippi R. W. Harned (June 21): Grasshoppers that have been tentatively identified by J. M. Langston as Melanoplus scudderi Uhl. were reported as very abundant in cotton fields in Valley Park on June 5. Considerable injury to the cotton, especially at the edges of the field, was reported.

Montana

W. B. Mabey (June 23): In spite of all indications of damage by grasshoppers this season, as yet they have not appeared in outbreak numbers. We have reports of grasshoppers hatching rather abundantly in Hill County and also in the southern part of Beaverhead County near Monida.

Colorado

C. P. Gillette (June 14): Grasshoppers are very abundant, especially in Adams and Weld Counties.

Utah

G. F. Knowlton (June 2): Young grasshoppers are quite abundant in sugar-beet fields at Saratoga and south of Salt Lake City. (June 18): Grasshoppers are now rather abundant in many parts of northern Utah. Adults of the red-legged grasshopper (Melanoplus femur-rubrum DeG.) are now present.

Arizona

C. D. Lebert (June): Several species of Melanoplus are are very abundant throughout the Salt River Valley; severe damage occurring to cotton, young citrus, and alfalfa in the vicinity of Levine. Hoppers are very numerous on alfalfa near Chandler. Considerable damage to ornamentals is reported in the vicinity of Phoenix. Melanoplus atlantis Riley is especially numerous on alfalfa near Chandler.

Africa

O. S. Heizer (Consul) (May 12): (Excerpt from Review of Commerce and Industries for the quarter ended March 31, 1930): Large numbers of locusts are moving northwards and it is feared that the spring crops will be destroyed. Already the cereals have been attacked. These insects have arrived in the north in their red state this year, and up to the present have done comparatively little damage. The red locust does not eat, its digestive tube being compressed by reserve matter accumulated before taking flight. It is so organized that it can accomplish long air trips without nourishment. It seldom reaches the littoral except in a clement year like the present one, because it changes to a yellow color while crossing the Atlas Mountains, and comes down to the littoral in this state about March. The yellow locust is voracious. It lays its eggs in fertilized ground or in dried river beds. The eggs take fifteen to twenty days to hatch and then the band moves forward, destroying all vegetable life. Already, fields have been attacked in southern Oran and Constantine, while at Biskra nearly 2,500 acres are reported to be contaminated.

CUTWORMS (Noctuidae)

Ohio

E. W. Mendenhall (June 6): The cutworm Agrotis unicolor Walk., was quite troublesome in Clark and other counties in southwestern Ohio.

Minnesota

A. G. Ruggles and assistants (June): Cutworms continued to be reported during the first half of the month from practically all parts of the State and as seriously abundant in the central and southern parts of the State.

North Dakota

J. A. Munro (June 20): A number of reports of cutworm injury, particularly to cereal crops, have been received from points in Pembina, Adams, Divide, Cavalier, Ramsey, Nelson, Cass, and Steele Counties. A report turned in by Mr. M. W. Fitzsimonds indicated that cutworms had completely destroyed 500 acres of flax on a farm at Neche, Pembina County. In this latter case the worms were identified as the red-backed cutworm (Euxoa ochrogaster Guen.). Mr. R. C. Powell, county agent of Nelson County, sent in specimens of this species and stated that they were doing considerable damage to flax fields in his county. He states that these worms are working on the high land only and have completely taken patches of half an acre or more in the fields.

South Dakota

H. C. Severin (June 18): Cutworms are very abundant, being general over the State but more abundant in the eastern half.

Nebraska

C. N. Ainslie (June 7): The first planting of corn is being very seriously damaged in several counties of northeastern Nebraska by two or three species of cutworms. The species most numerous in sandy soils is Euxoa detersa Walk.

M. H. Swenk (June 13): Cutworms are proving quite troublesome in the cornfields, cutting the young corn plants. In numerous cases the replanting as well as the original planting has been taken. Such injury is more or less general over eastern and southern Nebraska, but cutworm depredations have been especially severe in the Elkhorn Valley. Antelope County is suffering the greatest damage, but injury is severe in the

lighter soils of Pierce, Madison, Stanton, and Cuming Counties also. Euxoa detersa Walk. is the chief offender in that section, but other species are also present there and elsewhere in damaging numbers. (June 13): Moths of the army cutworm (Chorizagrotis auxiliaris Grote) have been flying in great numbers in western Nebraska during the period from May 15 to June 15, especially during the last week in May and the first week in June. These are the aftermath of the heavy army cutworm infestations in some of the wheat and alfalfa fields in that region during the period from March 15 to April 15. The moths get into houses and other buildings in great numbers, and are much complained of as a severe annoyance.

Montana

W. B. Mabey (June 23): The pale western cutworm (Porosagrotis orthogonia Morr.) has increased considerably this season through the central part of the State and only within the area in which it was forecast. The damage has been limited to small patches but has been quite general. (June 23): The red-backed cutworm (Euxoa ochrogaster Guen.) is still quite abundant in Ravalli County, doing considerable damage to sugar beets.

Colorado

C. P. Gillette (June 14): Cutworms are very abundant, causing especially serious damage to head lettuce, in northern Colorado.

Utah

G. F. Knowlton (June 3): Cutworms are damaging corn and late-planted tomatoes in Box Elder and Weber Counties. Cutworms have been doing considerable damage to late tomatoes in northern Davis County.

Oregon

L. P. Rockwood (May 31): Five times as many moths of Agrotis c-nigrum L. were taken in bait traps in May, 1930, as in May, 1929, three times as many of Lycophotia margaritosa Haw., and only one-seventh as many of Agrotis ypsilon Rott. at Gaston and Forest Grove, while twelve times as many Feltia vancouverensis Grote were collected at the same place. Neuria procincta Grote was scarce on the bent grass meadows near Coquille. On a wet meadow mostly grown up to sedges but with some bent grass, from 10 to 15 larvae in the second and third stages were taken per 50 sweeps of the net. Damage by this species to the bent grass seed crop is not anticipated this year. This species is much scarcer than usual in the Willamette Valley.

COTTON LEAF WORM (Alabama argillacea Hbn.)

Texas

F. L. Thomas (June 25): The cotton leaf worm is present in nearly all fields of the lower Rio Grande Valley.

WHITE-LINED SPHINX (Celerio lineata Fab.)

Nevada

G. G. Schweis (June 28): A heavy outbreak is reported in four counties feeding mostly on Russian thistle and mallow. No cultivated crops attacked as yet.

WIREWORMS (Elateridae)

Maine

H. B. Peirson (June 20): Wireworms are moderately abundant at Augusta.

New Jersey

T. J. Headlee (June 1): Wireworms are very abundant in the central and northern parts of the State.

Pennsylvania

C. A. Thomas (June 8): Pheletes agonus Say has done considerable damage in the southeastern part of the State during late May and early June. In the first half of May the dry weather kept these larvae down in the soil, but after the rains of mid-May, they appeared near the surface and injured corn and truck crops. One 5-acre field of newly-planted corn in Montgomery County was plowed up and replanted after over 80 per cent of the grains had been ruined. Wireworms of other species were very scarce in this field.

- North Carolina J. N. Tenhet (June 3): Wireworms (Monocrepidius vespertinus Fab.) have been conspicuous by their absence this spring. There has been no damage in the South Carolina bright-tobacco belt. Not one heavily infested field has been found. (June 19): Emergence of adults is later than usual. The first click beetle of this species was collected today at Chadbourn.
- South Carolina J. N. Tenhet (June 14): Corn and cotton are suffering heavily as usual from the sand wireworm (Horistonotus uhleri Horn). At least one watermelon field was observed to be badly injured, and various truck crops at Brunson are suffering.
- Indiana J. J. Davis (June 20): Wireworms damaged corn at Kempton May 24.
- Illinois S. C. Chandler (June 14): Wireworms are very abundant in southern Illinois.
- Missouri L. Haseman (June 23): Wireworms are moderately abundant, the stand in some fields of corn being badly damaged.
- Minnesota A. G. Ruggles and assistants (June): Although reported from practically the entire southern part of the State, wireworms are seriously abundant in Brown and Morrison Counties only.
- North Dakota J. A. Munro (June 20): A previous report indicated that wireworms had caused serious injury to barley at Mandan. Reports since then have indicated that wireworms have caused much injury to wheat at points in Towner and Cavalier Counties. A farmer of Sarles, Cavalier County, reported on May 29 that wireworms had totally destroyed his 80 acres of wheat.
- South Dakota H. C. Severin (June 18): Wireworms are moderately abundant in northeastern South Dakota. A number of reports have been received of damage to corn.
- Nebraska M. H. Swenk (June 13): From Richard County during late May came reports of serious injury in cornfields by Melanctus cribulosus Lec. In one field these pests have been injuring the corn for the past three years, and this season they are destroying the stand.
- Oklahoma C.E. Sanborn (June 5): Wireworms are moderately abundant in the northwestern part of the State.
- Alabama K. L. Cockerham (June 5): Adults of the wireworm Heteroderes laurentii Guer. have been more numerous in Mobile County this year than ever before.
- Mississippi K. L. Cockerham (June 5): On May 31 the first specimens of Heteroderes laurentii ever found in Jackson County were collected

at Big Point. This makes the third county in Mississippi where this species has been found, specimens having been found in George and Harrison Counties in 1929.

Montana

W.B. Mabey (June 23): Wireworms are very abundant in Missoula County, especially in the trucking area near Missoula. They have also done considerable damage to wheat in Hill County.

PLAINS FALSE WIREWORM (Eleodes opaca Say)

Texas

F. L. Thomas (June 25): An extensive outbreak of false wireworm adults (probably Eleodes opaca) occurred the first week of June in the Panhandle of Texas.

WHITE GRUBS (Phyllophaga spp.)

Illinois

W. P. Flint (June 16): As expected, white grubs are beginning to cause serious damage in many cornfields in central and northern Illinois, some fields in central Illinois at the present time showing an average of from 2 to 12 grubs to the hill of corn and the grubs are not all as yet concentrating in the corn hills. It is already apparent that a number of these fields will not produce a profitable corn crop and they are being sown to soy beans or some other crop.

S. C. Chandler (June 14): Severe injury by grubs in one cornfield near Belleville, following sweet clover, has been observed.

Wisconsin

E. L. Chambers (June 24): White grubs are doing serious injury to corn and other crops in southern and western Wisconsin and heavy losses have been experienced in the State Nursery at Trout Lake where the seedlings are being destroyed by white grubs.

Minnesota

A. G. Ruggles and assistants (June): White grubs are reported as very abundant in Huston, Chippewa, and Waseca Counties.

North Dakota

J.A. Munro (June 20): White grubs are reported as causing serious injury to lettuce plants in the vicinity of Forest River, Grand Forks County, by Wm. R. Page, county agent. Another report by T. H. Kristjanson, county agent, indicated that white grubs are causing much damage to native pasture land.

Missouri

L. Haseman (June 23): White grubs are moderately abundant. Adults were still on the wing June 20.

Nebraska

M. H. Swenk (June 13): The first complaints of white grubs in strawberry beds were received during the second week in June.

Tennessee G. M. Bentley (June 13): Adults of the white grubs or May beetles are very abundant in Knox County, feeding on apple leaves.

Alabama J. M. Robinson (June 20): White grubs are moderately abundant on pecan foliage at La Fayette.

ROSE CHAFER (Macrodactylus subspinosus Fab.)

New York Weekly News Letter, N. Y. State Coll. Agr. (June): Rose chafers are very numerous and doing slight damage in the lower Hudson River Valley.

Delaware L. A. Stearns (June 20): The rose chafer was very abundant throughout the State and on many plants during the first two weeks in June.

Maryland E. N. Cory (June 20): The rose chafer is reported in Anne Arundel and Prince Georges Counties.

Ohio J. S. Houser (June 23): The rose beetle M. subspinosus is very destructive this season.

Indiana J. J. Davis (June 20): The rose beetle was conspicuous in many parts of the State. The following specific records were received: Damaging grapes, peonies, spirea, and crabapple at Terre Haute, May 31; rose, apple, asparagus, and other fruits and vegetables at Hobart, June 11; corn, rose, and plum foliage and fruit at Pierceton, June 17; grape, rose, and peony at Macy, June 17; garden plants at Brimfield, June 14; and causing the death of chickens at Monterey, June 12; also damaging grapes and other fruits and causing the death of over 100 chickens at Plymouth, June 19.

Wisconsin E. L. Chambers (June 24): County agents in Monroe, LaCrosse, Chippewa, and Eau Claire Counties report serious injury to corn from the rose chafer, and dozens of other reports received from various parts of the State indicate serious injury to many other plants.

FALSE CHINCH BUG (Nysius ericae Schill.)

California E. O. Essig (June 24): The false chinch bug was destructive to many plants in Monterey, Santa Cruz, Santa Clara, Alameda, and Contra Costa Counties in May and June.

RED SPIDER (Tetranychus telarius L.)

Michigan R. H. Pettit (June 13): The red spider, or some closely allied mite, is again working on raspberries in Berrien County. A call sent in by the county agent indicates that the situation is serious.

Mississippi

R. W. Earned and assistants (June): The red spider is very abundant on truck crops along the Gulf Coast.

CEREAL AND FORAGE - CROP INSECTS

WHEAT

HESSIAN FLY (Phytophaga destructor Say)

Illinois

S. C. Chandler (June 14): The Hessian fly is moderately to very abundant in southern Illinois.

Iowa

H. E. Jaques (June 26): The Hessian fly is moderately abundant in the southern half of the State.

Missouri

L. Haseman (June 23): The Hessian fly is moderately abundant. The spring brood has not bred so abundantly as was expected, owing perhaps to the cold spring.

Nebraska

M. H. Swenk (June 13): A very serious outbreak developed in southeastern Nebraska during the period May 15-June 15, but that outbreak is not being reported on at this time since a special investigation is still in progress. A report on this outbreak will be made early in July.

WHEAT STRAW WORM (Harmolita grandis Riley)

Texas

F. L. Thomas (June 25): The wheat straw worm is abundant in Ochiltree and Gray Counties.

Oregon

T. R. Chamberlin (May): The first adults were swept in Linn County May 9, and they were common in sweepings in Clackamas County by May 22.

WHEAT JOINT WORM (Harmolita tritici Fitch)

Oregon

T. R. Chamberlin (May): Cool, rainy weather has so retarded issuance from the stubble that by May 22, 35 days after the first issuance, only one-half of the adults had emerged. In 1929 the first adults issued May 15 and one-half had issued by June 3, 19 days after the first issuance. Adults have not been swept abundantly from growing wheat at any time during the spring of 1930.

STEM MAGGOTS (Meromyza spp.)

Oregon

T. R. Chamberlin (May): Sweepings in the Wallamette Valley during April and May indicate that M. nigriventris Macq. is less abundant than usual throughout the valley and in some sections (Linn County) much less abundant. This condition is probably the result of the very dry fall of 1929, with little volunteer grain and fresh grass for the flies to oviposit upon and higher mortality among the flies before they were ready for oviposition. M. flavipalpis Malloch was scarce in sweepings during April and May.

CHINCH BUG (Blissus leucopterus Say)

Illinois

W. P. Flint (June 16): The spring has been very favorable to the chinch bugs, and in spite of the fact that their numbers had been greatly reduced by the unfavorable season of last year, they have been able to lay their full quota of eggs. These eggs have now hatched and a few small grain fields will contain enough chinch bugs to cause some damage to adjoining fields of corn. If the season continues favorable, chinch bugs will undoubtedly become abundant enough to cause considerable damage next season.

J. H. Bigger (June 16): Chinch bugs were found scarce in a survey of the central and southwestern counties.

Iowa

H. E. Jaques (June 26): The chinch bug is moderately abundant in Floyd and Monroe Counties.

Missouri

F. M. Wadley (June 2): Reported as injurious around Nevada.

L. Haseman (June 23): The chinch bug is moderately to very abundant. In the central part of Missouri, owing to the dry spring, red nymphs were very abundant and threatening on June 20. Most unexpectedly this pest has bred up in alarming numbers. Between it and the Hessian fly some wheat fields have been ruined. By June 20 the bugs were about one-third grown and ready to start for corn.

Nebraska

M. H. Swenk (June 19): The chinch bug is scarce.

Oklahoma

F. M. Wadley (May 13): Adults/swept at Stillwater from a grass not recognized as a favorable food plant, which suggests widespread prevalence of this insect. R. H. Painter reported that they have been injurious at Lawton for the past two years.

CORN

FALL ARMYWORM (Laphygma frugiperda S. & A.)

North Carolina

Z. P. Metcalf (June 20): There is a severe outbreak of the fall armyworm in Beaufort, Carteret, and Onslow Counties, attacking especially corn, cotton, tobacco, soy beans, and peanuts. Adults have not yet been reared and specific determination is doubtful.

C. H. Brannon (June 16): This insect has caused widespread damage to corn in Craven, Jones, Onslow, and Beaufort Counties.

Mississippi

M. Brunson (June 10): This insect was found on grass

in cornfields on the above date. As yet no damage to corn was noticed. Parasitism seemed to be quite common at the time.

R. W. Harned (June 21): Southern grassworms have been very abundant in the southern half of the State during June. Young corn has been seriously injured, and in many cases fields have had to be replanted.

Louisiana W. E. Hinds (June 24): Laphygma frugiperda has been abundant in a few localities but not occurring in widespread general outbreaks this season.

CORN EAR WORM (Heliothis obsoleta Fab.)

North Carolina C. H. Brannon (June 18): The corn ear worm is causing severe injury to tobacco buds in many sections of the State. It is causing unusually serious injury to growing tips of corn.

South Carolina A. Lutken (June 13): Infested stalks were sent in by S. L. Jeffords of Spartanburg. The borers were feeding in tassels of young corn.

Wisconsin E. L. Chambers (June 28): A large shipment of sweet corn received in Washington County from the Southern States was heavily infested with ear worms. More than 40 per cent of the ears were reported infested by the county agent and an ear submitted for examination contained 6 large larvae.

Tennessee G. M. Bentley (June 13): The adults were just emerging in Knox County on May 27.

Alabama J. M. Robinson (June 20): Moderately abundant at Bay Minnette, Opelika, and Anniston, and very abundant on tomato at Goodwater.

Mississippi R. W. Harned and assistants (June): The corn ear worm is reported quite generally throughout the State and very abundant throughout the central part of the State.

Louisiana W. E. Haley (June 4): Young larvae and eggs were found at Raceland on corn silk.

STALK BORER (Papaipema nebris nitela Guen.)

Ohio T. H. Parks (June 9): These borers are moderately abundant and are being found in corn, where they are mistaken for the European corn borer by growers. We do not think they are more abundant than in the average year.

Indiana J. J. Davis (June 20): The stalk borer made its first appearance June 2, and frequent reports of injury have been

received since that time. To date, June 20, all larvae sent in have been quite small. General field infestations have been reported, more than in the past, due no doubt to grassy growths in fields last fall when the moths were laying eggs.

Ohio E. W. Mendenhall (June 23): The stalk borer is found quite bad in hollyhock and phlox plants in gardens in Columbus.

J. S. Houser (June 23): The stalk borers are moderately abundant, found feeding in strawberry fruit.

Illinois J. H. Bigger (June 16): The first report from Pike County was received June 10.

Iowa H. E. Jaques (June 26): The stalk borer is moderately abundant in Pocahontas, Buchanan, Polk, Clarke, and Scott Counties.

Wisconsin E. L. Chambers (June 24): Some cornfields in Monroe County were reported being injured, and specimens submitted were the common stalk borer.

Missouri L. Haseman (June 23): The stalk borer is very abundant and is very serious on corn and garden crops. About one-half grown June 20.

Nebraska M. H. Swenk (June 19): The stalk borer is moderately abundant in eastern Nebraska.

Mississippi R. W. Harned (June 21): Considerable injury to tomato plants was reported on May 28 from Water Valley. A correspondent at Okolona reported on June 4 that he had observed several stalks of cotton injured by this insect.

LINED CORN BORER (Oligia fractilinea Grote)

Illinois W. P. Flint (June 16): The lined corn stalk borer has been much more abundant than usual in northern and particularly in northeastern Illinois. Many specimens have been received from that section of the State.

SOD WEBWORMS (Crambus spp.)

Ohio E. W. Mendenhall (June 6): The corn root webworm is quite bad in Greene, Preble, and Clark Counties this spring. Its destructive work caused replanting of corn.

T. H. Parks (June 25): Sod webworms, which were abundant the latter part of May and early part of June, have ceased feeding, but during the month of June were reported damaging corn in widely separated areas of the western half of Ohio.

Indiana J. J. Davis (June 20): Reports of injury to corn by the webworm were received from La Fayette (May 17), Rushville (May 26), Middletown (June 3), and Kempton (June 20).

Kentucky W. A. Price (June 24): Sod webworms are still doing considerable damage to corn and tobacco in several counties in the State.

Iowa H. E. Jaques (June 26): Sod webworms are moderately abundant in Winnebago, Buena Vista, Boone, Story, and Van Buren Counties.

Missouri L. Haseman (June 23): On June 21 three different species of sod webworm moths were unusually abundant in central Missouri, coming to lights at night. There has been no serious outbreak affecting corn.

CORN ROOT APHID (Anuraphis maidi-radicis Forbes)

Indiana J. J. Davis (June 20): The corn root aphid was reported June 7 as damaging corn in Jasper County. Probably the same species damaged melons at Morocco, June 16. (June 24): It was generally abundant in Spencer County. One 40-acre field was plowed up and replanted.

Kentucky W. A. Price (June 24): The corn root aphid is doing notable injury to corn in Carter, Lincoln, and Elliott Counties.

SPOTTED CUCUMBER BEETLE (Diabrotica duodecimpunctata Fab.)

North Carolina Z. P. Metcalf (June 20): The spotted cucumber beetle is very abundant.

Indiana H. K. Riley (June 20): Cucumber beetles are numerous. Growers and canning company field men report them more than usually abundant, especially the spotted cucumber beetle.

Kentucky W. A. Price (June 24): The 12-spotted cucumber beetle is doing much damage to corn in Menifee County.

Wisconsin E. L. Chambers (June 24): Specimens of the spotted cucumber beetle were submitted by the county agent of Portage County, who stated that a large field of corn was being badly injured by the pest.

Mississippi R. W. Harned and assistants (June): The spotted cucumber beetle is reported as very abundant in practically all parts of the State.

Oklahoma C. F. Stiles (June 23): The spotted cucumber beetle is very abundant in central Oklahoma.

SEED CORN BEETLE (Agonoderes pallipes Fab.)

Missouri L. Haseman (June 23): There have been a few complaints of injury to corn during the month.

Nebraska M. H. Swenk (June 13): Seed corn beetles have been very numerous in many cornfields on low ground during the period in June here covered, and in a few localities, notably eastern Dodge County and southern Buffalo County, they have been doing considerable damage to the young corn.

SOUTHERN CORN LEAF BEETLE (Myochrous denticollis Say)

Ohio T. H. Parks (June 10): This insect was reported from Clermont County where it had badly damaged corn in two adjoining fields. A visit to the area showed that these fields had been uncultivated for ten years and had grown to wild grasses and brambles. The spring has been very dry and this land was very cloddy. This is the first report of this beetle damaging corn in Ohio for a long time.

Kentucky W. A. Price (June 24): The southern corn leaf beetle continues to damage corn and tobacco in Harrison County.

Missouri L. Haseman (June 23): A few complaints have been received from central Missouri during the month. On June 21 samples of larvae were received from Bonnots Mill.

CORN BILLBUGS (Sphenophorus spp.)

Indiana J. J. Davis (June 20): Corn showing old corn billbug injury was received from Hillsdale June 12 and Kempton June 20.

Illinois W. P. Flint (June 19): Billbugs have been reported causing serious damage along the Mississippi and especially the lower Illinois River bottoms. All cases of damage thus far are from either Sphenophorus callosus Oliv. or S. destructor Chitt.

Kentucky W. A. Price (June 24): The corn billbug is doing serious damage in Fulton County.

Missouri L. Haseman (June 23): During June complaints of injury have continued to come to the College of Agriculture.

CORN-FEEDING SYRPHUS FLY (Mesogramma polita Say)

Florida J. R. Watson (June 20): A heavy outbreak of the corn-feeding syrphus fly occurred in one field in Alachua County. The insects were apparently feeding on the pollen only. Many of them were in the tassels, but many were also crawling over the surface of the leaves, and in the latter case they were also apparently feeding exclusively on pollen. No commercial damage was apparent.

OATS

GREEN BUG (Toxoptera graminum Rond.)

- Indiana J. J. Davis (June 24): The green bug was reported by the County Agent of Spencer County as responsible for the "utter failure of oats in the county." We did not see specimens.
- Colorado C. P. Gillette (June 27): The green bug is moderately abundant in Morgan County.

SOY BEANS AND COW PEAS

VELVETBEAN CATERPILLAR (Anticarsia gemmatilis Hbn.)

- Florida J. R. Watson (June 20): The first adult of Anticarsia gemmatilis was found in Gainesville on June 16. This is rather early for their appearance in the Gainesville section and may indicate a rather heavy infestation for the year.

SALT-MARSH CATERPILLAR (Estigmene acraea Drury)

- Mississippi W. E. Hinds (June 24): The salt-marsh caterpillar has been abundant and damaging soy beans and cotton, especially in the lower part of Lafourche Parish, since the last week of May. The abundance decreases northward but is still considerable in many localities as far north as Baton Rouge.

COWPEA CURCULIO (Chalcodermus aeneus Boh.)

- North Carolina C. H. Brannon (June 26): This species is reported to be causing serious injury to cowpeas in Edgecombe County.

CLOVER AND ALFALFA

LESSER CLOVER LEAF WEEVIL (Phytonomus nigrirostris Fab.)

- Maryland E. N. Cory (June 20): The lesser clover leaf weevil is reported as injuring beans in Talbot and Somerset Counties.
- Indiana J. J. Davis (June 20): The clover bud worm was very abundant and destructive to red clover in the vicinity of La Fayette.
- Illinois J. H. Bigger (June 16): The clover bud weevil is very abundant; it destroyed approximately 50 per cent of the buds of all clover in western Illinois.

ARMYWORM (Cirphis unibuncta Haw.)

Iowa H. E. Jaques (June 26): The armyworm is very abundant in Washington County. Eighty acres of clover has been totally destroyed and 100 acres of clover and timothy meadow infested in spots, with an estimate of 10 per cent loss.

ALFALFA CATERPILLAR (Eurymus eurytheme Boisd.)

Arizona C. D. Lebert (June): The alfalfa caterpillar is very abundant in adult stages in fields near Chandler.

F R U I T I N S E C T S

APPLE

APPLE APHID (Aphis pomi DeG.)

Connecticut M. P. Zeppe (June): Very few green apple aphids were reported at the beginning of the season in New Haven County, but they are becoming quite abundant on young trees.

New York Weekly News Letter, N. Y. State Coll. Agr. (June): These insects started to increase rapidly early in the month and by the end of the month were outnumbering the other species. They were particularly abundant in the lower Hudson River Valley.

New Jersey T. J. Headlee (June 1): Green apple aphids are moderately abundant in general.

Michigan R. H. Pettit (June 20): Fruit aphids are very abundant.

Minnesota A. G. Ruggles and assistants (June): Fruit aphids are very abundant in Lake, Brown, Waseca, Murray, and Hennepin Counties.

Utah G. F. Knowlton (June 18): The green apple aphids are damaging occasional trees throughout northern Utah.

ROSY APPLE APHID (Anuraphis roseus Baker)

New York Weekly News Letter, N. Y. State Coll. Agr. (June): By the middle of June the rosy apple aphid had been reduced to negligible numbers in practically all parts of the State. Practically no commercial damage was experienced this year.

Delaware L. A. Stearns (June 20): The rosy apple aphid is very abundant in New Castle County and moderately abundant in Kent and Sussex Counties.

Virginia

W. J. Schoene (June 11): Rosy aphids are causing considerable injury in many parts of the State. Aphids were generally absent or present in very small numbers when the delayed dormant spray was applied, with a result that the nicotine was omitted. In some orchards the injury will probably reduce the crop from 3 to 5 per cent.

Utah

G. F. Knowlton (June 18): The rosy apple aphid is severely injuring a few apple trees at Midvale, Bennion, and Taylorsville.

CODLING MOTH (Carpocapsa pomonella L.)

New York

Weekly News Letter, N. Y. State Coll. Agr. (June): Side injury began to be observed in the western part of the State by the middle of the month and by the third week in the month was becoming quite conspicuous in the Hudson River Valley.

Delaware

L. A. Stearns (June 20): First emergence at Camden, May 3; first eggs, May 13; first larvae, May 22; first brood of larvae half-grown, June 16. Second cover spray just applied. Emergence of the spring brood still continues, covering a period of seven weeks to date.

Ohio

T. H. Parks (June): Adults of the overwintering brood are still emerging in small numbers at Columbus. Worms began leaving the apples about June 20. The brood is very much drawn out in all parts of the State. In Ottawa County, northern Ohio, our heaviest emergence of moths occurred June 21 to 25. In Lawrence County, southern Ohio, pupae were being found under bands June 21.

Indiana

J. J. Davis (June 24): Codling moth worms were leaving apple June 5 at Vincennes according to Lathrop and June 10 at Bedford according to Marshall. This was 8 days earlier at Bedford than last year. This would indicate a full and possibly larger third brood.

Illinois

W. P. Flint (June 19): Examinations throughout the State indicate that second-brood codling moths will begin hatching in southern Illinois about June 27 and that the first hatch of second-brood larvae will come at approximately the same time throughout the southern one-third of the State. The first-brood worms have not been abundant. In most of the sprayed orchards it is quite difficult at this time to find any wormy apples. There is a slight increase in the abundance of codling moths in western Illinois over that of southern and eastern Illinois.

S. C. Chandler (June 14): The last emergence of moths of the overwintering brood took place at Carbondale June 6.

Of 1,500 larvae put into winter quarters 158 emerged. The first pupation of larvae from apples took place on June 13 at Carbondale. In general the first-brood infestation in the orchards (sprayed and unsprayed) is light.

Missouri

R. M. Jones (June 19): The codling moth situation in the Ozarks looks better than at this time last year, owing largely to the severe winter and cool spring and more favorable weather for applying spray materials.

L. Haseman (June 23): Codling moths are reported in central and northern Missouri. First-brood moths are all out in central Missouri; some emerging in northwestern Missouri. Larvae of the second brood cocooning; few pupae; few moths of second brood out.

Alabama

O. I. Snapp (June 17): Infestation very heavy in summer apples at Fort Payne. A high percentage of the fruit contained larvae which entered through the calyx end.

Colorado

C. P. Gillette (June 14): The codling moth is moderately abundant in orchard areas. Because of light set of fruit, the damage will be serious.

Utah

G. F. Knowlton and M. J. Janes (June 19): Codling moth worms are rather scarce in sprayed orchards, and less abundant than usual in unsprayed orchards.

Washington

Calif. Spray-Chemical Co. (May 26): The first record of codling moth eggs for this season was on May 12. Two eggs were found which had apparently been laid several days earlier. The first actual worm work reported this year was from the Kennewick district, on May 13. The first worm work found in our test orchard in the Broadway district, Yakima, was on May 12, when a single worm was found in a Jonathan apple. This worm appeared to have hatched about two days earlier and was just beneath the skin.

CANKERWORMS (Alsophila pometaria Harr.)
(Palaecrita vernata Peck)

New York

E. P. Felt (June 23): A. pometaria was locally very abundant about Chappaqua, Westchester County, and in a number of Long Island localities, entire orchards having the foliage destroyed.

J. V. Schaffner, Jr. (June 12): A. pometaria was stripping many trees at Oyster Bay, L. I., as reported by A. W. Goodger on June 12.

Minnesota

K. A. Kirkpatrick (June 16): Very heavy infestations of P. vernata and A. pometaria in much of Hennepin County; elm and basswood trees in the lake district and many orchards entirely defoliated.

A. G. Ruggles (June 23): P. vernata and A. pometaria are about through doing damage this year. Worst outbreak of several years.

EYE-SPOTTED BUDMOTH (Spilonota ocellana Schiff.)

New York

Weekly News Letter, N. Y. State Coll. Agr. (June): Budmoth injury was quite severe in the western part of the State but practically negligible in the Hudson River Valley. By the third week in the month, injury had practically ceased.

CASE BEARERS (Coleophora spp.)

New York

Weekly News Letter, N. Y. State Coll. Agr. (May): Case bearers are present in small numbers in both the Hudson River Valley and the lake regions; some injury is being done in unsprayed orchards in Orange and Niagara Counties.

RED-BANDED LEAF ROLLER (Eulia velutinana Walk.)

Ohio

T. H. Parks (June 6): The larvae have been attacking green apples in an orchard in Greene County and another in Delaware County. The Greene County orchard was seriously infested by the same insect last fall.

FRUIT TREE LEAF ROLLER (Archips argyrospila Walk.)

New York

Weekly News Letter, N. Y. State Coll. Agr. (June): In the lower Hudson River Valley damage by leaf rollers is very conspicuous. They are also noted in a number of poorly sprayed orchards in the western part of the State.

APPLE MAGGOT (Phagoletis pomonella Walsh)

Ohio

L. H. Parks (June): Much interest is displayed by apple growers concerning the control of the apple maggot this year. In cooperation with the Experiment Station, we are placing emergence cages in northeastern Ohio to trap the emerging flies in order to time the sprays. No flies had emerged prior to June 24.

Michigan

R. H. Pettit (June 11): Mr. G. S. Tolles has bred numbers of apple maggot adults from hawthorn collected both at South Haven and in the vicinity of Lansing. It is noteworthy that these puparia, kept since Christmas time at 70° did not produce adults sooner, waiting as they did until near the time when the outdoor emergence will occur.

LEAFHOPPERS (Cicadellidae)

Maine

H. B. Peirson (June 20): Apple leafhoppers are very abundant in general.

- Massachusetts A. I. Bourne (June 23): Apple leafhoppers are moderately abundant.
- Connecticut M. P. Zappe (June 21): Leafhoppers are more abundant for this time of the year than usual in New Haven County.
- New York Weekly News Letter, N. Y. State Coll. Agr. (June): Apparently these insects are more numerous than usual, and by the third week in the month stippling of the foliage was conspicuous in Ulster, Clinton, Monroe, and Niagara Counties.
- Maryland E. N. Cory (June 20): Apple leafhoppers are moderately abundant in Howard and Allegany Counties.
- Virginia W. J. Schoene (June 11): The apple leafhopper, Typhlocyba pomaria McAtee, has been reported injurious in Augusta and Montgomery Counties. The adults of the first brood are now mature.
- Ohio J. S. Houser (June 23): Apple leafhoppers are moderately abundant.
- Indiana J. J. Davis (June 20): The apple leafhopper (Typhlocyba pomaria McAtee - DeLong det.) was reported abundant on apple at Bedford, June 1, by G. E. Marshall. (June 21): Apple leafhoppers are moderately abundant in southern Indiana.
- Michigan R. H. Pettit (June 20): The apple leafhoppers are very abundant.
- Missouri R. M. Jones (June 20): Apple leafhoppers are moderately abundant at Marionville. One grower reports their presence on apple nursery stock.
- Tennessee G. M. Bentley (June 13): Apple leafhoppers are very abundant in Knox County.

APPLE REDBUG (Lygidea mendax Reut.)

- New York Weekly News Letter, N. Y. State Coll. Agr. (June): Redbug injury was unusually severe in Dutchess, Yates, Niagara, and Ulster Counties.

APPLE FLEA WEEVIL (Orchestes pallicornis Say)

- Missouri L. Haseman (June 23): The college orchard near Columbia showed a heavy infestation of apple flea weevils during late May, with new weevils beginning to emerge by June 12.

SAN JOSE SCALE (Aspidiotus perniciosus Comst.)

- Indiana R. A. Sazama (June): San Jose crawlers began hatching about June 1, approximately 10 days earlier than usual.

- Kansas H. B. Hungerford (June 18): The San Jose scale is very abundant in southern Kansas.
- Mississippi R. W. Harned and assistants (June): The scale is reported as very abundant and in many cases abundant throughout the State.
- Washington Calif. Spray-Chemical Co. (June 12): The first crawling young of the San Jose scale for this year were found in a Fairview orchard of Yakima on June 10.

PEACH

PEACH BORER (Aegeria exitiosa Say)

- Indiana J. J. Davis (June 20): The peach tree borer was abundant on peach at Elkhart June 4.
- Kansas H. B. Hungerford (June 18): The peach borer has given trouble in our nurseries for the last two years and promises continued trouble.
- Mississippi R. W. Harned and assistants (June): The peach borer was reported as very abundant from the north-central and east-central parts of the State.
- Utah G. F. Knowlton (June 3): The peach tree borer is very common, and spring treatments have been required in some places in Box Elder County.

PEACH TWIG BORER (Anarsia lineatella Zell.)

- New York Weekly News Letter, N. Y. State Coll. Agr. (June): Reported during the first week of the month as causing considerable injury in Orange County.
- Utah G. F. Knowlton and M. J. Janes (June 19): Peach twig borer larvae are scarce at the present time, the first brood just beginning to appear on apricots.

ORIENTAL FRUIT MOTH (Laspeyresia molesta Busck)

- Connecticut P. Garman (June 24): About the same in abundance as last year in Hartford and New Haven Counties.
- New York Weekly News Letter, N. Y. State Coll. Agr. (June): Injury is now being reported as quite prevalent throughout the State. The second brood began to appear about the third week in the month.

- New Jersey J. Gray (May): Oriental fruit moth larvae were very scarce during the first week of May in the vicinity of Moorestown. Twig injury in observed orchards was negligible on May 9. Orchards under observation in the vicinities of the following localities in southern New Jersey show larval infestation records as follows: Moorestown, 20-26 per cent; Haddonfield, 61 per cent; Barrington, 30-38 per cent; and Glassboro, 33 per cent.
- Pennsylvania T. L. Guyton (June 27): The oriental fruit moth is moderately abundant in Allegheny, Beaver, Washington, and Lawrence Counties.
- Delaware J. Gray (May): Some twig injury was found in a few localities near Dover May 13, but the infestation was not severe.
- L.A. Stearns (June 20): Now we are having an interval between the first and the second broods. Parasitism by Macrocentrus ancylihora Rohw. is heavy.
- North Carolina Z. P. Metcalf (June 20): The oriental fruit moth is scarce.
- Georgia C. H. Alden (June 20): The oriental fruit moth is moderately abundant at Cornelia. Heavy twig injury.
- O. I. Snapp (June 20): To date, the infestation at Fort Valley this year is the lightest since the insect became established in the middle Georgia peach belt. The number of injured twigs has increased in some orchards since the last report, but still not enough to materially affect tree growth.
- Florida J. R. Watson (June 20): The oriental fruit moth is moderately abundant in western Florida.
- Ohio E. W. Mendenhall (June 23): Peach trees show the effect of the oriental peach moth in Columbus and vicinity by the presence of dying twigs.
- Indiana J. J. Davis (June 21): The oriental fruit moth is very abundant in general.
- Illinois S. C. Chandler (June 14): There has been an increase in twig infestation by the oriental fruit moth over last year in all sections of the State, but greatest in Pulaski County at the tip end of the State, where from 30 to 60 per cent of the terminals of thrifty growing young peach trees had been injured. North of Pulaski County the injury is much lighter. Occasional apples and pears are now being entered, as there are no peaches.
- Kentucky W. A. Price (June 24): The oriental fruit moth is moderately abundant.

Tennessee G. M. Bentley (June 13): The oriental fruit moth is scarce in Knox County.

Mississippi M. R. Smith (June 21): Damage to the terminal shoots of peach trees is quite common throughout the town of Louisville and is apparent in various sections of the town of Weir.

R. W. Harned (June 21): Peach twigs that had been injured by the larvae were received from Fulton and Sherman on June 8.

PLUM CURCULIO (Conotrachelus nenuphar Hbst.)

Maine E. B. Peirson (June 20): The plum curculio is very abundant in general.

Massachusetts A. I. Bourne (June 23): The plum curculio is moderately abundant.

Connecticut P. Garman (June 24): Very severe injury in nearly all orchards visited in Hartford County.

B. H. Welden (June 24): The plum curculio is very abundant.

Rhode Island A. E. Stene (June 26): The plum curculio is very abundant.

New York Weekly News Letter, N. Y. State Coll. Agr. (June): This insect is unusually serious throughout practically the entire State.

Delaware L. A. Stearns (June 20): Mature first-brood grubs have been issuing from drops in large numbers since May 23; severe injury to both the short peach crop and to early apples in the Bridgeville section.

Georgia O. I. Snapp (June 6): The first adults of the new generation emerged today from pupation boxes at Fort Valley. This record is perhaps a little earlier than the first emergence date in orchards, as we have supplied them with water at times whereas there has been no rain in orchards for seven weeks. Georgia Belle and Elberta may be attacked by second-brood larvae. (June 20): No second generation eggs have been deposited yet at Fort Valley. Hiley peaches are now being harvested, and we are anticipating no second-brood attack in that variety.

C. H. Alden (June 20): The plum curculio is moderately abundant at Thomaston and Cornelia. First-generation beetles emerging. Pupal stage in soil.

Ohio J. S. Houser (June 23): The plum curculio is very abundant.

Illinois S. C. Chandler (June 14): Jarrings on unsprayed plum and apple trees have shown a considerable decrease in population of curculios since June 1.

Michigan R. H. Pettit (June 20): The plum curculio is very abundant.

GREEN PEACH APHID (Myzus persicae Sulz.)

Delaware L. A. Stearns (May 20): Green peach aphids are more abundant throughout the State than at any time in the last four years.

A CICADA (Platyedidia putnami Uhl.)

Utah G. F. Knowlton (June 1): This cicada is very abundant at Provo, ovipositing in peach trees in one orchard. (Det. by W. L. McAtee)

THRIPS (Thysanoptera)

Colorado C. P. Gillette (June 14): Thrips are very abundant in Mesa County, blemishing peaches.

PEAR

PEAR PSYLLA (Psyllia pyricola Foerst.)

New York Weekly News Letter, N. Y. State Coll. Agr. (June): Although abundant in many orchards where spraying was neglected, this insect is not doing much damage as yet.

Illinois S. C. Chandler (June 14): The infestation by the pear psylla is very light in the Alma section, where severe injury occurred last season.

QUINCE

A LACEBUG (Corythucha cydoniae Fitch)

Ohio T. H. Parks (June 3): This species of lace bug was found quite abundant on the leaves of quince trees growing in a large commercial orchard in Ashtabula County. The manager has been compelled to fight these lace bugs for the past two years. No evidence of their presence was found on any other trees or in any other orchard in that county.

CHERRY

CHERRY FRUIT FLIES (Rhagoletis spp.)

- New York Weekly News Letter, N. Y. State Coll. Agr. (June):
Early in the month adult flies (R. fausta O. S.) began
appearing throughout the State, reports having been
received from Erie County, and eastward and southward
to Ulster County. They were still emerging in considerable
numbers by the middle of the month in Wayne County. R.
cingulata Loew appeared about a week later than R. fausta
and was emerging in large numbers during the month in Ulster
County. This species has been reported from practically
all of the fruit counties.
- Michigan R. H. Pettit (June 11): On June 8 R. fausta O. S. appeared
in our cages out of doors at two points in the State, - Gobles,
in Van Buren County, and Grand Rapids, in Kent County. These
two localities are the only ones known where the black-bodied
fly is known to be established in the State. The more common
banded fruit fly (R. cingulata Loew) has not yet appeared.

BLACK CHERRY APHID (Myzus cerasi Fab.)

- New York Weekly News Letter, N. Y. State Coll. Agr. (June):
This insect is extremely scarce throughout the State this year.
- Tennessee G. M. Bentley (June 13): Black cherry aphids are very
abundant in Knox County.
- Utah G. F. Knowlton and M. J. Jones (June 19): The black
cherry aphid is very abundant in some northern Utah orchards
and absent from others. They are fairly abundant at Lake
View and Vineyard.

PLUM

APHIDS (Aphidae)

- South Dakota H. C. Severin (June 18): We have had the worst outbreak of
aphids this year that has occurred in the past 22 years, by
the mealy plum louse (Hyalopterus arundinis Fab.), the rusty
brown plum louse (Hysteroneura setariae Thos.), and a host of
others.
- Nebraska M. H. Swenk (June 19): Fruit aphids are very abundant.
- Oklahoma C. E. Sanborn (June 5): Hysteroneura setariae Thos. is
moderately abundant.

RASPBERRY

RASPBERRY FRUIT WORM (Byturus unicolor Say)

New York Weekly News Letter, N. Y. State Coll. Agr. (June):
This insect is very abundant and doing considerable damage
in the western part of the State.

FULLER'S ROSE BEETLE (Pantomorus fulleri Horn)

California E. O. Essig (June 24): Fuller's rose beetle was abundant
and destructive to raspberries in a few patches at Mt. View
in May and June.

GRAPE

GRAPE LEAFHOPPER (Erythroneura comes Say)

Delaware L. A. Stearns (June 20): An unusually severe infestation
of the grape leafhopper is occurring throughout the State;
first-brood nymphs were in the first and second stages
June 16 and 17.

New York Weekly News Letter, N. Y. State Coll. Agr. (June):
This insect was very numerous in Chautauqua and Dutchess
Counties. In Chautauqua County driving rains materially
reduced the numbers.

GRAPE ROOT WORM (Fidia viticida Walsh)

Maryland E. N. Cory (June 20): The grape root worm is being reported
from many localities.

Missouri L. Haseman (June 23): The grape root worm is reported
in the southwest Missouri grape-growing area; there seems
to be an outbreak. Specimens of the adult beetles were
received on June 18.

GRAPE PLUME MOTH (Oxyptilus periscelidactylus Fitch)

New York Weekly News Letter, N. Y. State Coll. Agr. (June):
Larvae are causing considerable injury to grape plantings
in Niagara County.

GRAPE BERRY MOTH (Polychrosis viteana Clem.)

Delaware L. A. Stearns (June 20): First-brood larvae were active
June 16 at Dover.

CURRANT AND GOOSEBERRY

IMPORTED CURRANT WORM (Pteronidea ribesii Scop.)

Nebraska M. H. Swenk (June 13): Defoliation of currant and gooseberry bushes continued until early in June, having started about April 25.

CURRANT APHID (Myzus ribis L.)

Utah G. F. Knowlton and M. J. Janes (June 19): The currant aphid is causing damage throughout northern Utah, wherever red currants are being raised.

PECAN

PECAN NUT CASE BEARER (Acrobasis caryae Grote)

Florida J. R. Watson (June 20): The pecan nut case bearers are more numerous and destructive this year than usual. They are going to reduce seriously what promised to be a fairly good crop of pecans.

Louisiana W.E. Hinds (June 24): Pecan nut case bearers have been abundant and caused much shedding of young nuts.

Alabama J. M. Robinson (June 20): The pecan nut case bearer is moderately abundant at Hothan and Mobile.

FALL WEBWORM (Hyphantria cunea Dru.)

Florida J. R. Watson (June 20): The fall webworm seems to be more abundant ^{usual} than in the northern part of the State, but unusually scarce in the central part.

Alabama J. M. Robinson (June 20): The first generation of fall webworms is abundant at Auburn and Deer Park.

Mississippi R. W. Harned (June 21): Fall webworms have attracted attention in pecan trees in various parts of the State since the latter part of May. The first specimens were received on May 27 from Satartia. The infestations as yet are not very heavy.

M. M. High (June 2): The fall webworm was observed for the first time this season on pecan at Landon and Gulfport on June 2. The larvae were small and apparently not more than two or three days old.

M. R. Smith (June 2): Moths have been out for at least several weeks. Larvae are beginning to work on persimmon, pecan, and other host plants.

PECAN CATOCAIA (Catocala viduata Guen.)

Mississippi

R. W. Harned (June 21): Specimens of the pecan catocala were received on May 30 from Jackson. Slight injury had been noted on pecan trees.

APHIDS (Aphidae)

Mississippi

R. W. Harned and assistants (June): Three species of pecan aphids, Myzocallis fumipennellus Fitch, Monellia costalis Fitch, and M. carvella Fitch are reported as abundant on pecan in Stone County.

PECAN SPITTLE BUG (Olastoptera obtusa Say)

Mississippi

J. P. Kislanko (June 18): The spittle insect is very abundant in one pecan orchard west of Wiggins. Out of 575 nut clusters examined, 479 were infested. Many of the clusters that were counted as free had several insects on the buds just below the nut clusters. Injury to some nuts is very apparent.

ALMOND

LEAF-FOOTED BUG (Leptoglossus phyllopus L.)

Arizona

C. D. Lebert (June): The leaf-footed bug is quite numerous on almonds in a local residence. The pest was present in all stages and very numerous. All the fruit had dropped from the trees.

CITRUS

CITRUS WHITEFLY (Dialeurodes citri Ashm.)

Florida

J. R. Watson (June 20): The citrus whitefly is abundant; more so than for several years.

A LEAF BEETLE (Trirhabda brevicollis Lec.)

Mississippi

R. W. Harned (June 21): Specimens of Trirhabda brevicollis were collected from orange trees at Pass Christian on May 20 and sent to this office. Serious injury was reported at that time. On June 5 Inspector H. Gladney wrote as follows: "Almost every citrus tree we observed in Pass Christian was badly eaten, not only the foliage but in some cases the bark. Almost all the prickly ash trees observed were practically defoliated."

ORANGE TORTRIX (Tortrix citrana Fern.)

Florida

J. R. Watson (June 20): An unusual outbreak of the orange tortrix has occurred in certain groves in Polk County. In one grove a careful check of the extent of damage indicated that they had destroyed 4 per cent of the crop.

MITES (Acarina)

Florida

J. R. Watson (June 20): The purple mite (Paratetranychus citri McG.) and the six-spotted mite (Tetranychus sexmaculatus Riley) has been numerous, but with the advent of heavy rains it is diminishing in numbers.

CITRUS APHID (Aphis spiraecola Patch)

Florida

J. R. Watson (June 20): The green citrus aphid, which became very scarce during the latter part of May, has again increased in numbers and is doing considerable damage to young growth on tangerines in the citrus district of the State and on Satsuma oranges in Alachua County.

COTTONY-CUSHION SCALE (Icerya purchasi Maskell)

Arizona

C. D. Lebert (June): The cottony cushion scale is becoming quite abundant in the vicinity of Phoenix and it is rapidly going over to citrus from ornamentals. Pittosporum plants at several residences have been killed. The scale has been found on roses, pittosporum, citrus, nandena, ornamental willows, and gladiolus. Lady beetles (Vedalia cardinalis Muls.) are being introduced at various points of infestation, and in several cases the beetles have apparently completely destroyed the scale. The scale has been found at Chandler, Mesa, Safford, Tucson, and in the vicinity around Phoenix.

TRUCK - CROP INSECTS

SEED CORN MAGGOT (Hylemyia cilicrura Rond.)

- New York Weekly News Letter, N. Y. State Coll. Agr. (June): The seed corn maggot has very seriously damaged beans and cucurbits in Genesee, Monroe, Wayne, Ontario, Yates, Chautauqua, and Erie Counties.
- Virginia W. J. Schcene (June 11): The seed corn maggot has been reported injurious to beans and tomato plants in the vicinity of Richmond. These depredations extended over a number of weeks.
- North Carolina Z. P. Metcalf (June 20): The seed corn maggot is very abundant.
- Indiana J. J. Davis (June 20): The seed corn maggot was reported as damaging corn at Kokomo (May 23), in Jasper County (June 3), and at Rensselaer (June 4); soy beans at LaPorte (June 3); and lima beans at Franklin (June 2).
- Illinois W. P. Flint (June 16): Several reports of damage have been received from the northern third of the State.
- Michigan R. E. Pettit (June 20): The seed corn maggot is reported worse than ever.
- Minnesota A. G. Rugles (June 23): The seed corn maggot is moderately abundant. Complaints have been sent in from different localities.
- Iowa H. B. Jaques (June 26): The seed corn maggot is very abundant in Worth and Palo Alto Counties.
- Nebraska M. H. Swenk (June 13): A Boyd County correspondent reported injury to planted seed corn during the last week in May. During the following week similar reports of injury were received from Madison County.
- Utah G. F. Knowlton (June 12): Injury was so severe this spring that many farmers had to plant squash and melon seed the third time.

VEGETABLE WEEVIL (Listroderes obliquus Gyll.)

- Gulf Coast M. M. High (June 4): The vegetable weevil is now known to occur in 55 Mississippi counties, 40 Louisiana parishes, 19 Alabama counties, and 2 Florida counties. The dispersion of the weevil northward during the present season has not been so rapid as last year, but the weevil has continued to spread eastward and westward at about the same rate of speed as heretofore. Its flight northward may have been temporarily retarded by the severe cold of the past winter.

STRIPED FLEA BEETLE (Phyllotreta vittata Fab.)

Mississippi M. M. High (June 6): This flea beetle was very abundant on young turnip and cabbage the last half of May and first ten days in June. Some plantings were severely injured.

APHIDS (Aphididae)

Indiana J. J. Davis (June 20): Aphids were reported damaging turnip and lettuce at Vincennes, June 6. Specimens were not submitted.

Missouri L. Haseman (June 23): The past month has shown unusual outbreaks of plant lice on rhubarb, cabbage, beets, and lima beans, as well as shrubbery and trees.

MOLE CRICKETS (Scapteriscus spp.)

North Carolina C. H. Brannon (June 23): S. vicinus Scudd. has seriously damaged truck crops in New Hanover County and has infested dwellings, stores, and churches.

Alabama J. M. Robinson (June 20): The mole cricket is moderately abundant at Talladega.

Mississippi H. Dietrich (June 9): Mole crickets are injuring watermelon vines at Lucedale.

GARDEN SLUG (Agriolimax agrestis L.)

Wisconsin E. L. Chambers (June 24): Many reports are being received from various sections of the State to the effect that serious injury is being done by the garden slug. One grower reported a large plot of dahlias being attacked and the eyes eaten off as fast as they sprouted.

POTATO AND TOMATO

COLORADO POTATO BEETLE (Leptinotarsa decemlineata Say)

New York Weekly News Letter, N. Y. State Coll. Agr. (June 9): Egg deposition by the Colorado potato beetle is especially abundant this year in Suffolk County. No young larvae have been observed as yet. Very abundant in Onondaga County.

Minnesota A. G. Ruggles and assistants (June): The Colorado potato beetle began hatching about the middle of the month and is reported as very abundant from Sibley, Carlton, and Hennepin Counties.

- North Dakota J. A. Munro (June 20): The Colorado potato beetles were observed ovipositing at Hillsboro on June 6. Eggs were observed on potato plants at Amenia on June 19. Present indications point to trouble later on.
- Iowa H. E. Jaques (June 26): The Colorado potato beetle is very abundant over the northern third of the State and moderately abundant over practically all the rest of the State.
- Oklahoma C. F. Stiles (June 23): This insect is very abundant over the entire State.
- Mississippi R. W. Harned and assistants (June): The Colorado potato beetle is reported as very abundant in the southern part of the State and destructively prevalent in practically all sections, in some cases entirely defoliating the plants.
- Montana W. B. Mabey (June 23): The overwintering adults are more than usually abundant. No young have hatched yet.

POTATO FLEA BEETLE (Epiditrix cucumeris Harr.)

- Pennsylvania J. R. Stear (June 19): A heavy infestation was reported at the Koppers Experimental Farm, Ligonier. The 10-acre field of potatoes was considerably damaged.

POTATO LEAFHOPPER (Emboasca fabae Harr.)

- Indiana J. J. Davis (June 20): The potato leafhopper was damaging potatoes at Fowler June 17.
- Kentucky W. A. Price (June 24): The potato leafhopper is scarce. It is difficult to find enough for experimental purposes.
- Minnesota A. G. Ruggles and assistants (June): The potato leafhopper is reported as very abundant in Fillmore County.
- Iowa H. E. Jaques (June 26): The potato leafhopper is reported as very abundant in Buena Vista, Pocahontas, Floyd, Chickasaw, and Jones Counties and as moderately abundant over other parts of the State.

POTATO APHID (Illinoia solanifolii Ashm.)

- New York Weekly News Letter, N. Y. State Coll. Agr. (June 9): The potato aphid has already made its appearance in Suffolk County, two or three weeks ahead of normal.

POTATO PSYLLID (Paratrioza cockerelli Sulc.)

- Utah G. F. Knowlton (June 18): The tomato psyllid is occasionally present on potatoes in sufficient numbers to cause psyllid yellows.

Noticeable damage is occurring in one field at Farmington, where the first-generation adults are now emerging.

TOBACCO WORM (Protoparce quincuemaculata Haw.)

Mississippi K. L. Cockerham (April 22): The first specimen was found on the above date and since that time they have become numerous enough to necessitate hand picking on tomato plants in a garden at Biloxi. Many of the plants were being severely defoliated.

CABBAGE

CABBAGE MAGGOT (Hylemyia brassicae Bouche)

New York Weekly News Letter, N. Y. State Coll. Agr. (June): The cabbage maggot is doing considerable damage in central and western New York.

Ohio T. H. Parks (May 22): The cabbage maggot was unusually abundant in Southern Ohio this spring. Many growers lost a part of their planting.

Wisconsin E. L. Chambers (June 24): The cabbage maggot is again very serious on cabbage and radishes in many sections of the State where control measures are not being employed.

Montana W. B. Mabey (June 23): Cabbage maggots, although very abundant last season, are scarce in comparison this year.

Utah G. F. Knowlton (June 18): Cabbage worms have done moderate injury to cabbage at Cottonwood and Murray.

HARLEQUIN BUG (Murgantia histrionica Hahn)

North Carolina Z. P. Metcalf (June 20): The harlequin bug is very abundant.

Tennessee G. M. Bentley (June 13): The harlequin bug is scarce in Knox County.

Alabama J. M. Robinson (June 20): The harlequin bug is very abundant in Birmingham.

Mississippi R. W. Harned and assistants (June): The harlequin bug is doing considerable damage to cabbage in the south-central part of the State.

CABBAGE CURCULIO (Ceutorhynchus rapae Gyll.)

Indiana J. J. Davis (June 20): The cabbage curculio was reported as damaging 75 per cent of the cabbage plants in a commercial seed bed at Vincennes, May 24, according to F. H. Lathrop.

STRAWBERRY

STRAWBERRY LEAF ROLLER (Ancylis comptana Frohl.)

Indiana J. J. Davis (June 20): The strawberry leaf roller has been unusually abundant at Lafayette and Terre Haute the past month.

Utah G. F. Knowlton (June 4): Strawberry leaf rollers are causing moderate injury to strawberries at Lake View, Pleasantview, and Provo.

STRAWBERRY ROOT WEEVIL (Brachyrhinus ovatus L.)

Utah G. F. Knowlton (June 3): The strawberry root weevil is damaging occasional fields throughout the strawberry-growing area of northern Utah.

STRAWBERRY WEEVIL (Anthonomus signatus Say)

Utah G. F. Knowlton (June 4): Live strawberry weevils have been found in strawberries brought to the market at Provo. The weevils are maturing earlier this year than a year ago.

EARLY STRAWBERRY SLUG (Empria fragariae Rohw.)

Nebraska M. H. Swenk (June 13): From May 21 to June 2 many complaints were received of injury to strawberries by the early strawberry slug. These complaints were chiefly from the northeastern part of the State, especially from Pierce County west to eastern Holt County and Wheeler County, where the plants were in many cases quite defoliated by the slugs.

ASPARAGUS

ASPARAGUS BEETLE (Crioceris asparagi L.)

Delaware L. A. Stearns (June 20): The asparagus beetles (C. asparagi L. and C. duodecimpunctata L.) were very abundant in fields about Bridgeville June 12.

Pennsylvania C. A. Thomas (June 8): This asparagus beetle was exceptionally abundant in asparagus fields in the vicinity of Kennett Square, Chester County, during the first two weeks in May.

Indiana J. J. Davis (June 20): An asparagus beetle was reported abundant at Indianapolis May 31.

Colorado C. P. Gillette (June 27): The asparagus beetle is moderately abundant at Fort Collins, Denver, and Boulder.

BEANS

MEXICAN BEAN BEETLE (Epilachna corrupta Muls.)

- Delaware L. A. Stearns (June 20): The first adults were reported at Wilmington May 26. The beetle is/abundant throughout the State more than in 1929.
- Pennsylvania T. L. Guyton (June 27): The Mexican bean beetle is moderately abundant at Harrisburg.
- Maryland J. A. Hyslop (June 15): Adults are very numerous on string beans at Avenel, from 2 to 6 beetles on each plant.
- E. N. Cory (June 20): The Mexican bean beetle is moderately abundant in general.
- District of Columbia G. Myers (June 26): Adults are very numerous on snap beans at Chillum, near the Maryland State Line.
- Virginia W. J. Schoene (June 11): Very few reports of injury to beans by this insect have been received thus far this year.
- North Carolina Z. P. Metcalf (June 20): The Mexican bean beetle is very abundant.
- Georgia O. I. Snapp (June 7): Many complaints of damage to butter beans have been received at the Fort Valley laboratory during the past week.
- C. H. Alden (June 20): The Mexican bean beetle is scarce at Cornelia; much less abundant than in 1929.
- Indiana J. J. Davis (June 20): The Mexican bean beetle was reported abundant at Plainfield (June 10) and Crawfordsville (June 17).
- G. E. Marshall (June 19): The Mexican bean beetle made its appearance at Bedford June 17.
- Kentucky W. A. Price (June 24): This insect is generally very abundant over the State.
- Tennessee G. M. Bentley (June 13): The Mexican bean beetle is scarce in Knox County.
- Mississippi M. R. Smith (June 21): The Mexican bean beetle is generally distributed in the vicinity of Columbus.
- R. W. Harned and assistants (June): The Mexican bean beetle is normally abundant throughout the infested part of the State.

Colorado

C. P. Gillette (June 27): The Mexican bean beetle is moderately abundant along the eastern foothills and in Delta, Mesa, and Montrose Counties.

BEAN LEAF BEETLE (Cerotoma trifurcata Forst.)

Missouri

P. H. Johnson (June 23): The bean leaf beetle is doing considerable damage to beans in Central Missouri.

Mississippi

R. W. Harned (June 21): A correspondent at Hazlehurst reported on June 5 that bean leaf beetles could be found in abundance in that vicinity and that they seemed to be causing considerable injury to the bean crop.

CLOVER LEAF BEETLE (Hypera punctata Fab.)

Delaware

L. A. Stearns (June 20): The clover leaf beetle was reported injuring beans at Greenwood June 7.

SAY'S BLISTER BEETLE (Pomphopoea sayi Lec.)

New York

Weekly News Letter, N. Y. State Coll. Agr. (June 23): Say's blister beetle has been causing severe damage to Italian beans in Erie County by eating the blossoms and small buds that have formed.

AN APHID (Geoica radiculicola Essig)

Mississippi

R. W. Harned (June 21): This aphid was reported on roots of beans from Charleston June 7.

POTATO LEAFHOPPER (Empoasca fabae Harr.)

Florida

J. R. Watson (June 20): The bean jassid is causing much damage to beans and cowpeas in the Everglades, especially on the east shore of Lake Okeechobee.

ED
THREE-CORNER/ALFALFA HOPPER (Stictocephala festina Say)

Mississippi

R. W. Harned (June 21): On June 5 a correspondent at Union, sent to this office 1 adult and 34 nymphs that had been collected on bean plants in his garden. He wrote, "I have not before had any trouble with this insect, but have seen enough to convince me they are destructive."

PEAS

PEA APHID (Illinoia pisi Kalt.)

Ohio

T. H. Parks (June 8): The pea aphid has been greatly reduced in numbers since May 27. Hippodamia convergens Guer. has

developed remarkably and is now present in large numbers. Aphidius sp. has also increased and many lice have been killed by it, though it has not been so instrumental as the ladybugs in putting down the outbreak.

- Colorado C. P. Gillette (June 14): This insect is moderately abundant in alfalfa fields in Weld County.
- Utah G. F. Knowlton (June 18): The pea aphid is less abundant than usual this spring.
- Oregon L. P. Rockwood (May 12): We swept pea aphids at the rate of 500 (approximately) per 50 sweeps in some fields. They were "spotted," being much thicker in some places in a field of Austrian field peas than in others. There was no perceptible injury.

CUCUMBERS

STRIPED CUCUMBER BEETLE (Diabrotica vittata Fab.)

- Florida J. R. Watson (June 20): The striped cucumber beetle is very abundant in the Everglades. Not present in sandy soils of central Florida.
- Ohio T. H. Parks (June 23): The striped cucumber beetle is very bad in Mercer and Auglaize Counties, western Ohio. A pentatomid was observed to kill an adult beetle. This was sent to the office and identified as Mineus strigipes H.S. by Herbert Osborn.
- Michigan R. H. Pettit (June 20): The striped cucumber beetle is very abundant.
- Iowa H. E. Jaques (June 26): The striped cucumber beetle is reported as very abundant in Sioux, Pocahontas, Butler, and Carroll Counties and as moderately abundant in the rest of the State.
- Nebraska M. H. Swenk (June 13): The striped cucumber beetle began to be complained of as injuring cucumbers in southeastern Nebraska during the last week in May, and other such complaints were received during the remainder of the period from May 15 to June 15.

SQUASH

SQUASH BUG (Anasa tristis DeG.)

- Nebraska M. H. Swenk (June 13): The squash bug was reported attacking squashes during the second week in June.

- Alabama J. M. Robinson (June 20): The squash bug is very abundant in Opelika on tomatoes.
- Utah G. F. Knowlton (June 18): The squash bug is very abundant on squash at Bountiful and Salt Lake City. (June 3): The squash bug seems to be less abundant than usual in Weber County this spring. This insect has forced most farmers out of the squash business, in infested parts of northern Utah.
- California C. K. Fisher (June 9): A report came in today that 200 acres of cantaloupes at Modesto were heavily infested. The bugs were reported as doing considerable damage on May 7. I visited a field of squash which had been destroyed.

TURNIP

TURNIP APHID (Rhopalosiphum pseudobrassicae Davis)

- Ohio T. H. Parks (June 9): This plant louse is now abundant on wild mustard in central and southern Ohio. It destroyed a planting of early turnips in Washington County during May. (June 20): A serious outbreak was reported from Fayette County late in June. These are now heavily parasitized with Aphidius sp.

ONIONS

ONION THRIPS (Thrips tabaci L.)

A correction - The note on page 180 of the June number of the Bulletin on Hylemyia antiqua Meig. by W. A. Thomas of North Carolina should have been Thrips tabaci L.

- Indiana H. K. Riley (June 20): Onion thrips were observed June 19 doing considerable damage at Akron.
- Mississippi M. M. High (June 2): The onion thrips appeared in injurious numbers about three weeks before harvest this season. It was more abundant than it has been for several seasons, which was probably due to the light precipitation this season.
- Utah G. F. Knowlton and M. J. Janes (June 19): Injury is beginning to appear in Davis County.

ONION MAGGOT (Hylemyia antiqua Meig.)

- New York Weekly News Letter, N. Y. State Coll. Agr. (June): The onion maggot has done much damage in Niagara and Clinton Counties.
- Indiana J. J. Davis (June 20): The onion maggot was destructive at Roll, June 4.

H. K. Riley (June 20): On the whole injury has been light. Considerable injury was done in a few fields between June 1 and 20. There was a decrease in the number of injured plants about June 7, apparently due to a decrease in egg deposition during a cold, rainy spell about the middle of May.

Wisconsin

E. L. Chambers (June 24): Dozens of requests are being received for recommendations for control, and it appears to be unusually destructive over a large part of the southern half of the State.

Minnesota

L. L. Knots (June 18): The onion maggot is bad in Carlton County.

North Dakota

J. A. Munro (June 20): A report received from Bartlett, Ramsey County, on June 9 indicated that the onion maggot was causing serious injury in that vicinity.

Montana

W. B. Mabee (June 23): Onion maggots have been more than usually abundant this season.

Utah

G. F. Knowlton (June 10): The onion maggot is more abundant than usual in Davis County, and is doing some damage in Box Elder and Weber Counties.

PEPPER

BANDED CUCUMBER BEETLE (Diabrotica balteata Lec.)

California

A. C. Davis (June 5): This species is rapidly working northward. It was taken at Vista in 1929 and at Capistrano June 4, 1930. Apparently it is not yet doing any damage in this locality.

BEETS

BEET LEAFHOPPER (Eutettix tenellus Bak.)

Utah

G. F. Knowlton (June 2): The first generation is now partially completed in Tooele and Box Elder County breeding grounds. Nymphs of all sizes and new spring males and females are present, as well as some overwintering females. A few beetles have been found showing curly top, in fields west of Garland and at Magna. (June 18): The beet leafhopper became abundant in the beet fields of northern Utah during the latter part of May and early June, a dispersal having occurred. Curly top is now appearing in some of the beet fields. (June 19): Beet leafhoppers were commonly taken in sweeping potatoes in the Ogden area. (June 26): Curly top is seriously affecting some tomato patches at Clearfield and Clinton, from two to five per cent of the plants being noticeably affected.

California

E. O. Essig (June 24): The beet leafhopper is moderately abundant in the Delta region.

RHUBARB

RHUBARB CURCULIO (Lixus concavus Say)

Ohio

E. W. Mendenhall (June 23): There is an outbreak in a garden at Worthington. The curculios are ruining the plantation of rhubarb.

SWEET POTATO

SWEET-POTATO WEEVIL (Cylas formicarius Fab.)

Mississippi

H. Dietrich (June 15): The sweet-potato weevil is found plentiful in seaside morning-glory at Isle of Caprice, Biloxi.

MINT

MINT FLEA BEETLE (Longitarsus menthaphagus Gentner)

Indiana

J. J. Davis (June 24): The mint flea beetle was reported destructive to mint at Topeka and Cromwell, June 18.

TOBACCO

TOBACCO FLEA BEETLE (Epitrix parvula Fab.)

North Carolina

Z. P. Metcalf (June 20): The tobacco flea beetle is very abundant.

TOMATO WORM (Protoparce sexta Johan.)

North Carolina

J.N. Tenhet (June 13): The tobacco hornworm is more abundant than usual this year and is doing considerable damage to tobacco at Chadbourn.

TOBACCO THRIPS (Frankliniella fusca Hinds)

Florida

F. S. Chamberlin (June 20): The tobacco thrips are more abundant than normal. The tobacco crop in this region will sustain a certain amount of damage which can not be determined at this time.

SUGARCANE

SUGARCANE BORER (Diatraea saccharalis Fab.)

Louisiana

W. E. Hinds (June 24): The sugarcane borer is just beginning the second generation at about the middle of June. This species is unusually scarce in both corn and cane this season, and a year of exceptionally light infestation is anticipated. Trichogramma minutum Riley is not yet attacking the eggs.

F O R E S T A N D S H A D E - T R E E I N S E C T S

PERIODICAL CICADA (Tibicina septemdecim L.)

Middle

West

F. M. Wadley (June 17): Brood IV of the periodical cicada appeared this year in most woodlands throughout the eastern third of Kansas, in western Missouri, in some counties in southwestern Iowa, and in southeastern Nebraska, and in more localized areas in northeastern, central, and south-central Oklahoma, and in extreme northern Texas. Scattering emergence occurred in southern and eastern Kansas beginning May 10; emergence was general May 20-30; and the adults were still active, though diminishing in numbers, June 17. A few complaints of oviposition in orchards were received from northeastern Kansas, but on the whole very little injury occurred. Nearly all the cicadas were of the dwarf form cassini, though some of the larger typical form occurred in places.

SPRING CANCKER WORM (Paleacrita vernata Peck)

Pennsylvania

T. L. Guyton (June 6): The presence of P. vernata was noted in Erie, Crawford, and Mercer Counties. The caterpillars were quite small at that time (May 27). (June 27): P. vernata is quite numerous on soft maple trees in the mountainous districts of southern Sullivan County.

Wisconsin

E. L. Chambers (June 24): P. vernata is defoliating fruit and shade trees this summer over a large area extending from Madison to Green Bay and many trees are being killed in this area because of repeated defoliation for the past ten years.

North Dakota

J. A. Munro (June 20): P. vernata has been very abundant over a large portion of the Red River Valley of the eastern part of the State and at Minot, Ward County. Observations indicated that upwards of 90 per cent of the worms were spring cankerworms and the remainder were mostly the lime tree spanworm, Erannis tiliaria Harr. Most of the trees attacked have already been defoliated. Of the various trees attacked oaks appeared to be the least palatable to the worms.

BAGWORM (Thyridopteryx ephemeraeformis Haw.)

Indiana

J. J. Davis (June 20): Bagworms were abundant on cedars and other evergreens at Aurora, June 6.

Nebraska

M. H. Swenk (June 13): In the middle of May an Otoe County correspondent reported that the bagworm was infesting his cedar windbreak and defoliating the trees.

Mississippi

M. Brunson (June 13): A bagworm is causing considerable injury to ornamental cedar in and around Picayune. Several people have been inquiring concerning control measures.

R. W. Harned (June 21): Bagworms were reported as very abundant on arborvitae plants at Laurel on May 30.

WHITE-MARKED TUSSOCK MOTH (Hemerocampa leucostigma S. & A.)

Ohio

E. W. Mendenhall (June 20): Caterpillars are very numerous on maple, elm, and plane trees in some sections of Columbus and are attracting a good deal of attention.

FOREST TENT CATERPILLAR (Malacosoma disstria Hbn.)

Virginia

W. O'Byrne (June 17): The forest tent caterpillar is very bad in Buckingham County, completely defoliating oak, hickory, cherry, and black gum but avoiding tulip poplar, soft maple, and dogwood, even though they are abundant in defoliated areas. The defoliated spots range in size from an acre to several hundred, and in several instances even as much as 1,000 acres. While the caterpillars were present last year, they were not nearly so abundant, and Buckingham County is practically the only section of the State from which they are reported.

Minnesota

A. G. Ruggles (June 23): A few reports from the northern part of the State indicate abundance.

GIPSY MOTH (Porthetria dispar L.)

Maine

H. B. Peirson (June 20): There is a very heavy infestation in southern Maine.

SATIN MOTH (Stilpnotia salicis L.)

Maine

H. B. Peirson (June 20): The satin moth is extremely numerous from Bangor south. Complete defoliation of poplar is occurring in many sections and partial defoliation of willow. Caterpillars are swarming over and into houses. People are using shovels, rakes, blow torches, quicklime, kerosene, tar, and sticky tree-banding material as the trees had been sprayed. One house was invaded and the family forced to move out.

Connecticut R. B. Friend (June 23): The satin moth is very abundant on all poplars at Waterbury. Not before reported from this town. Larvae pupating June 18.

ORIENTAL MOTH (Cnidocampa flavescens Walk.)

Massachusetts J. V. Schaffner, Jr. (June 23): Collections of cocoons received during June add two towns, Medford and Watertown, to the known infested area. In both cases the cocoons were found on shade trees (Norway maple) in residential sections.

BROWN-TAIL MOTH (Nygmia phaeorrhoea Don)

Maine H. B. Peirson (June 20): The brown-tail moth is locally abundant.

UGLY-NEST CATERPILLAR (Cacoecia cerasivorana Fitch)

Maine H. B. Peirson (June 20): Extremely heavy infestations in Augusta and Cape Elizabeth. The road in one section is lined with great webs for nearly a quarter mile on cherry, ferns, milkweed, and general shrubs. At Cape Elizabeth it is reported on ~~oak~~, spruce, pine, cherry, and shrubbery of all sorts.

Massachusetts J. V. Schaffner, Jr. (June 23): Several reports have been received that the ugly nest tortricid is abundant in many localities throughout the eastern part of the State. Where abundant they often web in several bushes of wild black cherry or choke cherry.

TWO-LINED CHESTNUT BORER (Agrilus bilineatus Weber)

Connecticut and New York E. P. Felt (June 23): Adults appeared in numbers the week of June 16 at the Bartlett Tree Research Laboratories. The insect is generally present in southwestern Connecticut, and southeastern New York. The drought conditions late last year have presumably produced very favorable conditions for the development of this insect the present season.

TERRAPIN SCALE (Eulecanium nigrofasciatum Perg.)

Wisconsin E. L. Chambers (June): Maple and oak trees in many sections of the State are infested with this scale and specimens have been sent in from Villas, Rock, Walworth, and Dunn Counties.

SPRUCE MITE (Paratetranychus uniunguis Jacobi)

Connecticut and New York E. P. Felt (June 23): Spruce mite is common on Norway spruce and arborvitae, particularly the former, in southwestern Connecticut and southeastern New York.

ASH

ASH BORER (Podosesia fraxini* Lugger)

North Dakota

J. A. Munro (June 20): Mr. George Olson reports that the ash tree borer is causing serious injury to all the ash trees in the vicinity of Bowman. All trees are infested with this pest. As near as can be ascertained this report would practically hold true for all the ash plantings in the State. The ash tree borer, a species of carpenter moth, began to emerge in the vicinity of Fargo on June 6 and adults have been emerging fairly regularly since that time. Oviposition by the females was first observed to begin in the course of a week following emergence. Emergence took place during a short period about sunset. A trap lantern maintained in the vicinity of an ash planting did not result in capturing any of the moths.

BALSAM

AN APHID (Mindarus abietinus Koch)

Massachusetts

E. P. Felt (June 23): Specimens of balsam with the new growth very generally affected by this plant louse were received from Needham.

Vermont

H. L. Bailey (June 6): Balsam fir heavily infested.

BIRCH

BIRCH LEAF MINING SAWFLY (Phyllotoma nemorata Fallen)

Maine

H. B. Peirson (June 20): The birch leaf-mining sawfly promises to be very abundant throughout the State.

BIRCH LEAF MINER (Fenusa pusilla Klug)

Connecticut
and
New York

E. P. Felt (June 23): The birch leaf miner is generally present in southwestern Connecticut and southeastern New York, though not nearly so abundant as a few years ago.

BOXELDER

BOXELDER APHID (Periphyllus regundinis Thos.)

South Dakota

H. C. Severin (June 18): We have had the worst outbreak of aphids this year that has occurred in the past 22 years. The boxelder suffered most, many of the trees being defoliated.

Nebraska

M. H. Swenk (June 13): The boxelder aphid continued abundant on boxelder trees in northeastern Nebraska and the eastern edge of the sandhills until well toward the middle of June.

C. N. Ainslie (June 6): Boxelder trees all over northeastern Nebraska are being seriously damaged and many of the trees will probably die from the attack. This tree is grown everywhere throughout this region but does not rank high in popular favor at present. This fact discounts the loss that may result from this infestation.

ELM

FLAT-HEADED APPLE TREE BORER (Chrysobothris femorata Oliv.)

Nebraska M. H. Swenk (June 18): A severe infestation of elm trees with the common flat-headed wood borer was reported during the middle of May from a farm in eastern Sarpy County.

A LEAF BEETLE (Calligrapha scalaris Lec.)

Nebraska M. H. Swenk (June 13): A leaf beetle was reported defoliating elms in southwestern Fillmore County and western Thayer County during the first week in June, these localities being just east of the area that was severely infested in June of 1929.

A WOOLLY APHID (Eriosoma spp.)

Connecticut B. H. Walden (June 20): Many leaves curled in Litchfield and New Haven Counties. Rather more abundant as compared with the average year.

WOOLLY APPLE APHID (Eriosoma lanigerum Hausm.)

Georgia O. I. Snapp (June 2): Infestation on exposed roots very heavy at Fort Valley.

WOOLLY ELM APHID (Schizoneura rileyi Thos.)

Pennsylvania B. P. Felt (June 23): The woolly elm leaf aphid was reported as generally abundant on small trees at Washington.

ELM COCKSCOMB GALL (Colopha ulmicola Fitch)

Indiana J. J. Davis (June 20): The elm cockscomb gall was reported abundant at Liberty June 17.

Illinois W. P. Flint (June 16): Specimens are coming in very frequently from central and northern Illinois.

A CECIDOMYIID (Phytophaga ulmi Beut.)

Minnesota A. G. Ruggles (June 23): Reported on elms in nursery at Newport, but not doing so much damage as in 1929.

EUROPEAN ELM SCALE (Gossyparia spuria Modeer)

Nebraska

M. H. Swenk (June 13): The European elm scale was reported during the first week in June to be again damaging the elm and other trees in parts of the city of McCook, Redwillow County.

Kansas

H. B. Hungerford (June 18): The European elm scale was found on Chinese elm at Wichita. It is thought that this is a new host record for this insect.

ELM SCURFY SCALE (Chionaspis americana Johns.)

Indiana

J. J. Davis (June 24): The elm scurfy scale was reported abundant on young elms at Portland June 23.

HICKORY

HICKORY PHYLLOXERA (Phylloxera caryaecaulis Fitch)

Connecticut
and
New York

E. P. Felt (May 26): The hickory leaf stem aphid is generally distributed at Stamford and very local, since a badly infested tree with half to three-fourths of the foliage and wood succumbing annually may stand within 40 feet of another hickory, apparently the same species, and free from the insect. Observations show that the winter eggs are laid in the old galls and in bark crevices and that the young Phylloxera enter the buds when they are about half developed, starting galls in the leaf stems before the bud scales have dropped. P. caryaecaulis is somewhat widely distributed in southwestern New York at least. Occasional serious infestations occurred at Nassau, Rensselaer County, N. Y., and this by no means represents the limits.

JUNIPER

JUNIPER SCALE (Diaspis carueli Targ.)

Connecticut
New York
Massachusetts

E. P. Felt (June 23): The juniper scale is generally present, sometimes abundant on individual trees or groups of trees in southwestern Connecticut and southeastern New York and badly infested material was recently received from Needham, Mass.

JUNIPER WEBWORM (Dichomeris marginellus Fab.)

Connecticut
and
New York

E. P. Felt (June 23): The juniper webworm is somewhat common in southwestern Connecticut and southeastern New York, occasionally becoming serious upon groups of junipers.

LARCH

LARCH CASE BEARER (Coleophora laricella Hbn.)

Maine

H. B. Peirson (June 20): There is a heavy infestation from Augusta east to coast.

J. V. Schaffner, Jr. (June): Noted several areas of larch in Lincoln, Knox, Waldo, and Kennebec Counties, June 2-6, that were heavily infested. Many trees are being completely defoliated.

Vermont

H. L. Bailey (June 6-8): This insect has been rather plentiful in Vermont for several years. Indications are that the peak of period of abundance was reached two years ago. Moderate infestations have been noted this year wherever larch has been inspected.

Connecticut
and
New York

E. P. Felt (June 23): The larch case bearer is rather generally prevalent on larches in southwestern Connecticut and southeastern New York.

MAPLE

MAPLE NEPTICULA (Nepticula sericopeza Zell.)

Connecticut
New Jersey
New York

E. P. Felt (June 23): Recent investigations show the Norway leaf stalk borer to be generally distributed in southwestern Connecticut, southeastern New York and presumably northern New Jersey, at least in areas where the Norway maple has been established for a number of years. The larvae occur very generally in the fallen keys, over 90 per cent frequently being infested. The keys show a characteristic dark area along the suture or union between the two seeds. The leaf stalk boring habit appears to be limited almost entirely to trees not in fruit and consequently is exceptional rather than normal. The insect is very probably well established in areas where the Norway maple occurs.

A BAGWORM (Solenobia walshella Clem.)

New York

E. P. Felt (June 23): The small peculiar bags of the lichen-feeding bagworm were found rather commonly on the trunks of Norway maples at Scarsdale. It is not destructive and ordinarily escapes attention.

NORWAY MAPLE APHID (Periphyllus lyropictus Kess.)

Indiana

J. J. Davis (June 20): The Norway maple aphid is abundant at Flora, June 20, also at Danville June 20.

WOOLLY ALDER APHID (Prociphilus tessellatus Fitch)

Alabama J. M. Robinson (June 20): The alder blight aphid is moderately abundant on maple at Decatur, Burnsville, Hanceville, and Folkeville.

COTTONY MAPLE SCALE (Pulvinaria vitis L.)

Ohio E. W. Mendenhall (June 10): Some outbreaks are found in Columbus and vicinity. No special damage reported.

Indiana J. J. Davis (June 20): The cottony maple scale is apparently as abundant as ever. Reports of abundance received as follows: Indianapolis, Pittsboro, Cicero, Lizton, Knightstown, Noblesville, Marion, Hartford City, and Flora, May 26-June 17. Eggs hatching at La Fayette, June 19.

Kentucky W. A. Price (June 24): The cottony maple scale is doing serious damage at Hartford.

Wisconsin E. L. Chambers (June 24): Maple trees in Jefferson, Walworth, Kenosha, and Rock Counties are heavily infested in places with the cottony maple scale which is usually not very prevalent in this State.

Minnesota C. O. Ayres (June 20): The cottony maple scale is very abundant in the wooded areas in Lake County.

Nebraska M. H. Swenk (June 13): The cottony maple scale was reported as infesting the trees at Hershey, Lincoln County, during the first week in June.

Alabama J. M. Robinson (June 20): The cottony maple scale is moderately abundant at Citronella, Roanoke and Birmingham.

OAKFRUIT TREE LEAF ROLLER (Archips arawrospila Walk.)

Wisconsin E. L. Chambers (June 24): Practically the entire oak forests of Wisconsin have suffered injury from this pest, some large stands being more than 70 per cent defoliated. Most serious damage in Dunn, Portage, and Waupaca Counties where losses took place last summer.

GOLDEN OAK SCALE (Asterolecanium variolosum Ratz.)

Kentucky W. A. Price (June 24): The pit making oak scale is abundant on oaks at Paducah.

Alabama J. M. Robinson (June 20): The pit making oak scale is moderately abundant at Lanett.

PINEEUROPEAN PINE SHOOT MOTH (Rhyacionia buoliana Schiff.)

- Massachusetts J. V. Schaffner, Jr. (June 24): Received a collection June 24 with note stating that all the tops of pine on one-tenth of an acre are infested at Willamstown.
- Connecticut and New York E. P. Felt (June 23): There is a rather general and somewhat serious infestation at North Stamford and Greenwich, Conn., and also near Peekskill, N. Y., the mugho pine and Scotch pine suffering most.
- Michigan R. H. Pettit (June 20): Some caterpillars working on the leaders of Scotch pines received from Detroit have been identified by Mr. Carl Heinrich as R. buoliana Schiff. This is the first record of this pest in Michigan.

NANTUCKET PINE MOTH (Rhyacionia frustrana Comst.)

- Mississippi R. W. Harned (June 21): Serious injury to Japanese pine plants at Ocean Springs by larvae of R. frustrana was reported on May 23 by Inspector H. Gladney.

WOOLLY PINE APHID (Chermes pinifoliae Fitch)

- Connecticut and New York E. P. Felt (June 23): The woolly pine aphid was somewhat abundant upon a new planting of Scotch pines at Stamford, Conn., and also at Mount Kisco, N. Y., in the latter locality it being rather definitely associated with earlier severe injury of trees planted some 15 years. This insect in both cases was noticeably more abundant upon Scotch pine than upon near-by white pine and was practically absent from red pine.

PINE BARK APHID (Chermes pinicorticis Fitch)

- Ohio E. W. Mendenhall (May 31): There is quite an outbreak of pine bark louse in a white pine grove near Sugar Grove in Hocking County. (June 12): An outbreak of the pine bark louse was found infesting white pine trees at Painesville, Lake County.

SPITTLE INSECTS (Fulgoridae)

- Connecticut and New York E. P. Felt (June 23): Spittle insects, probably Aphrophora parallela Say, were extremely abundant on Scotch pine at North Stamford, Conn., and Mount Kisco, N. Y., 3 to 6 or even 10 masses of spittle being observed upon individual branchlets and the secretion being so copious that there was an almost continuous dropping from the more badly infested areas. The Scotch pine was especially subject to infestation, though, in some cases nearly as many were observed upon white pine.

Near-by red pine was not infested. There is probably a connection between serious infestation by this spittle insect and unthrifty pines.

Ohio

E. W. Mendenhall (May 31): The pine clastoptera (Clastoptera pini Fitch) is found in abundance on pines near Sugar Grove in Hocking County. The froth-like spittle was in evidence on the pine trees.

SCOTCH PINE LECANIUM (Toumeyella numismaticum P. & McD.)

Wisconsin

E. L. Chambers (June 23): Complaints have been received concerning the Scotch pine scale doing injury to Jack pine for first time in many years in Wisconsin. A survey was made and it was found to be doing serious injury to Jack pine and Scotch pine throughout the Jack pine growing area in the northern part of the State, principally in Dunn, Pierce, Washburn, and Adams Counties. Many pines are seriously injured and many have been killed outright.

SPRUCE

EASTERN SPRUCE BEETLE (Dendroctonus pictaperda Hopk.)

Maine

H. B. Peirson (June 20): Heavy outbreak in northern Maine.

A LEAF MINER (Epinotia nanana Treitschke)

Maine

H. B. Peirson (June 20): There are severe outbreaks of the spruce webworm being reported along the coast and locally inland.

SPRUCE BUDWORM (Harmoloba fumiferana Clem.)

Wisconsin

E. L. Chambers (June 24): Considerable injury to blue spruce, balsam, and Norway spruce is being reported throughout southern Wisconsin this summer and many specimens have been received.

Minnesota

A. G. Ruggles and assistants (June): The spruce budworm is reported from Hennepin and Lake Counties.

North Dakota

J. A. Munro (June 20): The spruce budworm is moderately abundant on spruce at Valley City and Fargo. It has been reported as causing serious injury to Black Hills spruce in the cemetery at Valley City. The pest has also been observed at Fargo.

INSECTS AFFECTING GREENHOUSE AND
ORNAMENTAL PLANTS AND LAWNS.

MULBERRY WHITEFLY (Tetraleurodes mori Quaint.)

Connecticut
and
New York

E. P. Felt (June 23): The mulberry whitefly occurs rather commonly in southwestern Connecticut on mountain laurel, Cornus, and other shrubs, and this season is somewhat abundant. Last year the small white flies were very numerous in midsummer.

GREENHOUSE CENTIPEDE (Scutigera immaculata Newp.)

Pennsylvania

C. A. Thomas (June 8): The greenhouse centipede has again done considerable injury this season in certain greenhouses in southeastern Pennsylvania. The chief injury was to germinating sweet peas, small aster plants, etc.

CANNA

LARGER CANNA LEAF ROLLER (Calpodes ethlius Cram.)

Mississippi

R. W. Harned (June 21): Heavy infestations were reported on May 21 from Bay Springs and Osyka.

Louisiana

T. E. Holloway (June 12): The larger canna leaf roller is doing some damage to cannas in New Orleans. It seems to have completed one generation.

DEODAR WEEVIL (Pissodes deodarae Hopk.)

Mississippi

R. W. Harned (June 21): Many complaints have been received from all sections of the State during the past month in regard to injury caused by Pissodes deodarae to Cedrus deodara plants.

CREPE MYRTLE APHID (Myzocallis kahawaluokalani Kirk.)

Mississippi

R. W. Harned (June 21): This aphid was reported on crepe myrtle from Aberdeen, Meridian, and West Point, May 29.

J. P. Kislanko (June 20): Crepe myrtle in the vicinity of Wiggins is very heavily infested.

IRIS

IRIS BORER (Macronoctua onusta Grote)

Indiana

J. J. Davis (June 20): The iris borer was very destructive to iris plantings at Lafayette early in June.

Wisconsin

E. L. Chambers (June 24): The iris borer is again very prevalent in some iris plantings of the State; one large planting, refused certificate of nursery inspection several years ago, continued to show increased infestation amounting to more than 90 per cent.

LILIES

A NOCTUID (Xanthopastis timais Cram.)

Mississippi

R. W. Harned (June 21): Larvae that have been tentatively identified by J. M. Langston as Xanthopastis timais were reported as abundant on lily plants at Gloster, on June 12.

OLEANDER

OLEANDER APHID (Aphis nerii Fonsc.)

Mississippi

J. P. Kislanko (June 17): The oleander aphid is very abundant on oleanders in the city park of Biloxi. Parasites, also, are quite numerous.

ROSE

ROSE SAWFLY (Caliroa aethiops Fab.)

Indiana

J. J. Davis (June 20): Rose slugs were destructive to roses at Morgantown, Bremen and Lafayette during June.

Nebraska

M. H. Swenk (June 13): The rose slug has been more than usually injurious during the period from May 15 to June 15.

ROSE CURCULIO (Rhynchites bicolor Fab.)

Utah

G. F. Knowlton (May 28): The rose snout beetle is damaging roses at Parvowan.

THRIPS (Thysanoptera)

Pennsylvania

C. A. Thomas (June 8): Twenty per cent of the roses in a large greenhouse were badly damaged by small green thrips which entered through the ventilators from an adjacent wheat field. They burrowed into the opening buds, distorting them so that they were unfit for market. This greenhouse is at London Grove, Chester County, Pa.

WILD IRIS

AN EUCOSMID (Argyroplote hebesana Walk.)

- Florida S. W. Berger and G. B. Merrill (June 24): The caterpillars of this little moth were found heavily infesting the unripe seed pods of iris near Rochelle, Hatchet Creek and Cedar Keys during the third week in April and into June. In the laboratory the first moths emerged on May 19 and the last on June 17. (This is a wild or uncultivated species.)

INSECTS ATTACKING MAN AND
DOMESTIC ANIMALS

MAN

MOSQUITOES (Culicinae)

- Missouri L. Haseman (June 23): In spite of the dry spring, mosquitoes are beginning to attract attention through central Missouri.
- Nebraska M. H. Swenk (June 13): A Holt County correspondent reported late in May that the mosquitoes were so bad on his low pasture land as to make things almost unbearable for the cattle and horses on pasture.
- Utah G. F. Knowlton (June 2): Mosquitoes are now very abundant and troublesome in marshy areas of northern Utah, and causing annoyance in many towns.

CLOVER MITE (Bryobia praetiosa Koch)

- Kentucky W. A. Price (June 24): The clover mite is quite troublesome in several residences in Lexington.

A GNAT (Hippelates pusio Malloch)

- Mississippi H. Dietrich (June 6): This is the first notice of "eye flies" at Lucedale. These were identified last year by Dr. O. A. Johannsen as Hippelates pusio Malloch. "The fly has been going by the above name." O. A. J.

CATTLE

HORN FLY (Haematobia irritans L.)

- Missouri L. Haseman (June 23): Cattle are suffering from the heaviest outbreak of horn flies that central Missouri has ever experienced.

DOG

AMERICAN DOG TICK (Dermacentor variabilis Say)

Maryland

J. A. Hyslop (June 24): The common wood tick is so numerous at Avenel that dogs are carrying from 1 to 6 ticks per square inch of skin all over their bodies except on lower legs. This is the most severe infestation observed in the past ten years in this locality.

HOUSEHOLD AND STORED -

PRODUCT INSECTS

TERMITES (Reticulitermes spp. et al)

Florida

J. R. Watson (June 20): Many inquiries are being received concerning the ravages of termites. We have no evidence that these insects are any more numerous than usual, but some commercial interests are press agenting the subject, and attracting considerable attention.

Indiana

J. J. Davis (June 20): Termites reported destructive to buildings at Russellville, Lafayette, and Terre Haute.

Nebraska

M. H. Swenk (June 13): A Douglas County correspondent reported that a dwelling house in Omaha was found badly infested with the termite Reticulitermes tibialis Banks during the last week in May, and a Phelps County correspondent reported during the first week in June that these pests were seriously working on the roots of some of his trees.

Arizona

C. D. Lebert (June): A termite (probably Kalotermes hubbardi Banks) was found in large numbers tunneling the hardwood floors and foundation timbers of a home in Phoenix. The damage was considerable.

ANTS (Formicidae)

Connecticut

B. H. Walden (June): More reports of injury from ants in New Haven County.

Delaware

L. A. Stearns (June 20): Complaints of ants injuring lawns have been received throughout late May and early June from numerous localities.

Nebraska

M. H. Swenk (June 13): Complaints of injury by ants in lawns and gardens, that were so numerous from April 15 to May 15, ceased rather abruptly during the third week in May. A Cedar County correspondent reported about the middle of June that the large red ants (Formica rufa L.) were so numerous about his place that the small children could not play outside because the ants would be on and all over them as soon as they sat down.

Mississippi

M. R. Smith (June 21): Specimens of Solenopsis molesta Say have been received from Corinth, and S. globularia var mobilensis Smith from Ocean Springs, Iridomyrmex pruinosus var. analis Andre from Louisville, Tapinoma sessile Say from Columbus, and Cremastogaster laeviuscula var. clara Mayr has been reported as doing considerable injury to dahlias in Columbus.

FIRE ANT (Solenopsis geminata Fab.)

Mississippi

M. R. Smith (June 21): Winged males and winged females of the fire ant are quite common in the vicinity of A. & M. College. The sexed forms are subject to attack by Plastophora spp. A lady living at Eupora informed us that the fire ants have eaten holes into a great deal of the clothing. Mr. R. P. Colmer found an imported form of fire ant, Solenopsis geminata var. rufa Fab. nesting in an old potato bank at Strikler Bros' farm, 4 miles from Big Point. This is the second time that the species has been taken in this State.

FOUR-LINED ASH BORER (Eburia quadrigeminata Say)

Indiana

J. J. Davis (June 24): The cerambycid larva reported in the Survey Bulletin, June, page 193, as issuing from the seat of an old rocker chair has been determined by F. G. Craighead as Eburia quadrigeminata Say.

WHITE MARKED SPIDER BEETLE (Ptinus fur L.)

Wisconsin

E. L. Chambers (June 24): A very serious infestation of the white-marked spider beetle occurred in a mill in northern Wisconsin, necessitating fumigation. A carload of flour was believed to have been responsible for bringing in the infestation, which originated farther south.

TAN BARK BORER (Phymatodes variabilis L.)

Rhode Island

A. E. Stene (May 29): Specimens of a beetle, reported in large numbers in cellars in two places, come apparently from stored wood. Determined by W. S. Fisher.

POWDER-POST BEETLE (Lyctus sp.)

Indiana

J. J. Davis (June 20): Powder post beetles reported causing considerable loss to unfinished or rustic hickory furniture May 24.

FIRE BRAT (Thermobia domestica Pack.)

Nebraska

M. H. Swenk (June 13): Rather an unusual number of complaints of infestation of houses and apartments were received from various parts of the State during the period May 15 to June 15.